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Tennessee Valley Paper Mills File With SEC

Registration Covers $2,392,500 of 5 Per Cent Debentures and Common Stock of No Par Value — Plans To Build Newsprint Mill Near Savannah, Tenn.—Company Expects To Have Total Fund of About $6,000,000.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 15, 1940—The Tennessee Valley Paper Mills, Inc., Knoxville, Tenn., filed a registration statement with the Securities and Exchange Commission on Friday of last week, January 12, covering $2,392,500 of 5 per cent debentures and common stock of no par value.

Loan Is Assured

The statement set out that the securities were to be sold in units, each comprising one share of common stock and one $100 debenture. The company said that it had applied for a loan of $3,420,000 from the Reconstruction Finance Corporation and that it had been given "definite indication" that the loan would be granted when the rest of the financing was assured.

The Tennessee Valley Paper Mills, Inc., Huntingdon, Tenn., Gordon Browning, Huntingdon, president, recently organized by Mr. Browning and associates, has plans under way for a large pulp and paper mill in vicinity of Savannah, Hardin County, where tract of land has been secured. The new mill will be given over primarily to the production of newsprint, using Southern slash pine as raw material for pulp, and at later date proposes to manufacture other grades of paper stock.

Power From TVA System

The plant will comprise several large one and multi-story units, with storage and distributing buildings, machine shop, pumping station and other mechanical departments. Contracts will be made with the Tennessee Valley Authority, Knoxville, Tenn., for power supply from transmission lines of TVA system, and power substation will be located on plant site for this service. Company is acquiring extensive tracts of timberlands in vicinity of mill for raw material supply, and will equip with sawmills, logging and other facilities for operation.

$4,000,000 For Mill Construction

To the loan of $3,420,000 from the Reconstruction Finance Corporation, Washington, D. C., for which arrangements are being made, will be added the proceeds of sales of bond and common stock issues to make a total fund of about $6,000,000 for financing project. Of this amount, it is said that over $4,000,000 will be used for mill construction and installation of machinery. It is expected to begin work on project early in the spring. Other officials of new company are R. M. Davenport, Washington, D. C., vice-president; and S. W. Duggan, Knoxville, Tenn., secretary and treasurer. An engineer has been engaged, it is stated, to prepare plans for the plant.

Orono Pulp Mill To Open in March

BANGOR, Me., January 15, 1940—A move significant to the life of the mill town of Orono was made with the announcement that the plant where the Orono Pulp and Paper Company once was located would resume operations, probably not later than March 15. This important statement was given by President Edward M. Graham, following a meeting of the Board of Directors of the Eastern Corporation.

Mr. Graham also stated that, according to present indications, over 100 men, preferably from Orono, would be employed in this new, independent venture. In charge of operations will be D. S. Cosler, one of the country's leading authorities in the manufacture of pulp.

Reasons for starting operations again in Orono, Mr. Graham said yesterday, lay in several fields, but two of them stand out:

(1) A distinct shortage of pulp all over the country; (2) conditions in Europe.

The mill will be devoted to pulp production, solely, at first, but paper operations will undoubtedly follow in its wake, the spokesman said.

When the plant of the Orono Pulp and Paper Company closed down in 1934, hundreds of men from the town, and other immediate communities, were thrown out of work. The mill was its lifeblood; the weekly payroll its pulse. In 1937 work started up in the Orono mill under the supervision of the Basin Mills operations, situated a mile down the main river, but it was terminated in a few months.

Orono has many expert mill workers to whom this new venture will bring renewed hopes. Added to this is the fact that, with increases in business, new, untrained workmen will be employed. Still in the formulative stage, the plans, however, are definitely established.

Canadian Newsprint Mills Have Good Year

With December, 1939, Output 17.4 Per Cent Higher Than In 1938 Canadian Newsprint Production Totaled 2,869,266 Tons For Last Year — Canadian Pulp & Paper Association To Meet January 26—Other News.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., January 15, 1940—With figures for December available, newsprint manufacturers can now look back upon the recording the past year with reasonable satisfaction. Although production was lower in December than in November, owing in part to the fact that there was one less working day in December, it was, at 240,656 tons, 39,148 tons or 17.4 per cent higher than in December, 1938. This production brought the total output for the year to 2,869,266 tons as compared with 2,624,580 tons in the previous year, while shipments for the year amounted to 2,861,202 tons, as compared with 2,515,996 tons. Total production for the year represented an operating ratio of 66.8 per cent of capacity, as compared with 62.4 per cent in 1938 and 93.9 per cent in 1937. Shipments from Canadian mills in 1939 were as follows: to Canada, 189,482 tons, as compared with 159,197 tons in 1938; to United States, 2,194,126 tons, as compared with 1,881,020 tons; to overseas, 477,594 tons, as compared with 475,779 tons.

Bank Loans Cleared Off

As showing the financial improvement in the industry during the year, a statement made by S. G. Dobson, general manager of the Royal Bank of Canada, is significant. Speaking at the annual meeting of that bank a few days ago, he said: "A perusal of the balance sheets of the majority of the pulp and paper companies, many of which are customers of this bank, will show that whereas a year ago their bank balances aggregated a considerable sum, these companies are now practically out of debt to their banks.

Annual Pulp and Paper Convention

The annual meeting of the Canadian Pulp and Paper Association is to be held in the Pulp and Paper Research Institute, Montreal, on Friday, January 26, and the annual luncheon will be held the same day at the Mount Royal Hotel, when it is expected that as usual, addresses by prominent citizens will be delivered. In the evening there will be a cabaret dinner. Prior to the annual meeting conventions of the Technical and Woodlands Associations will be held, these to take place on January 24, 25 and 26.

Harold Crabtree on Bank Directorate

Harold Crabtree, president of the Canadian Pulp and Paper Association, has been elected a director of the Royal Bank of Canada. He is president of the Howard Smith Paper Mills, Limited, Canada Paper Company, Limited, and Alliance Paper Mills, Limited. He is also a director of the Adams Paper Co., Wells River, Vt., and the Canadian Power and Paper Co., and vice-president of the Woods Manufacturing Company.

Increase in Fine Paper Prices

Following an increase in the contract price of $10 a ton, with quotations on the spot market considerably higher, fine paper producers in Canada have increased prices slightly as of January 1st. On writing paper grades, the increases range from 3 per cent to 5 per cent. In the case of book papers, the basis of sales contracts has been changed, with net gain in return to the mills about 5 per cent. On miscellaneous grades, the price advances amount to 3 per cent to 4 per cent. Companies making the price changes include Howard Smith Paper Mills, Rolland Paper and Provincial Paper.

Since the middle of September most mills have been accepting orders on a price basis subject to quotations at the time of deliveries, so that the new prices are immediately effective. As all Canadian fine paper producers make their own pulp, they are in a better position as regards supply than some of the American mills, especially those which prior to the war were supplied with sulphite pulp from Scandinavia.

The last previous change in prices by the Canadian mills took place late in 1938, when two substantial reductions were made, on some lines to a total of $27 a ton. The present revisions, therefore, only partly restore previous price levels.

Equitable Paper Bag Co. Moves

The Equitable Paper Bag Company has moved its Brooklyn plant to 47-00 Thirty-First Place, Long Island City, N. Y. The new plant has nearly 125,000 square feet of space, 100,000 feet of which is located on one floor, permitting the company to make a "streamlined" straight line layout of its equipment and manufacturing processes. A well appointed office of over 8000 square feet is laid out scientifically to permit efficient operation between the several departments.

In the past ten years, the Equitable Paper Bag Company has risen to a prominent position in the field it serves, its chief products being notion and millinery bags for department stores and chain stores, heavy duty paper sacks for the chemical, food and coal industries, as well as open-end envelopes. Most of the paper used by this company is manufactured at its own paper mills located at Orange, Texas, where is also maintained a large paper bag factory serving that part of the country.

The officers are as follows: Maurice Rosenfeld, president; Isaac Eisenberg, treasurer; W. D. Krissel, vice president; L. E. Canno, vice president; Joseph H. Eisenberg, secretary; and Gilbert A. Weisberger, general manager.

Smith, Dee & Lane Open New Office

BOSTON, Mass., January 15, 1940—Smith, Dee & Lane, New England manufacturers' representatives, have opened a new office in the Court Square Building, 85 Market street, Portland, Me. E. E. Goff, a member of the paper industry for many years, who is in charge of the office, will take care of the firm's business in Maine, New Hampshire and Vermont.

Chicago Reports Most Paper Prices Firm

Current Underlying Firmness In Midwest Market Viewed As Good Sign of Increased Sales of Paper In Future — Midwest Salesmen Plan For Paper Week In New York — Paper Containers Help the Sale of Milk.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., January 15, 1940—The only unusual news in the Chicago paper market during the week centers around the "against the trend" strength in the local waste paper market and the higher prices in manifolds, opaques, onion skin and other "thin" papers as reported by local offices. Other lines remained about the same during the week, all showing an underlying firmness but all more or less marking time until after next week when it is expected that inventory taking will have been completed and the market will return to something similar to its former buoyancy. Kraft papers were reported as having had an unusual amount of inquiries with the general market reacting to the raw material situation. Groundwoods were firm as was newsprint. Bonds and ledgers showed no appreciable change during the week but optimism was apparent on all sides for an improved demand very shortly. Books and covers were strong although demand was orderly and selective at this particular time. Contrary to Eastern conditions, local waste paper was still reported strong locally in virtually all grades though the lower grades were reflecting the plentiful supply of materials on hand.

Midwest Salesmen Plan for Paper Week

The midwest division of the Salesmen's Association of the Paper Industry is again making arrangements to send a good delegation to the National Paper Trade Association meetings in New York during paper week. The Salesmen's Association will have their annual luncheon meeting on February 20 and a great deal of local interest is being created in this program. A nominating committee composed of Fred Whitely, James H. Coy and Harold Knott is busy preparing a slate for both the vice presidency and assistant vice presidency of this division. The committee will also make recommendations to the New York office covering the entire slate and including recommendations for the presidency of the national organization. John Diggs of Mosinee is vice president of the midwest division while Frank Prentiss of Hollingsworth and Whitney is assistant vice president. The latter office was created a short time ago to assist the vice-president in handling a multitude of duties which cropped up when the Association materially increased its scope and its interest in educational and contact matters.

Peninsular Issues Attractive Calendar

The Peninsular Paper Company reached a new "high" in direct mail this month by forwarding to the trade a most useful desk calendar. Each month of the calendar is printed on a separate Peninsular item including Dawn Flake, Tuscan Cover, Twilmark Laid, Dubl-Color Duplex, Notre Dame Cover, Zamora Cover, and other items. Sandwiched in, unobtrusively, are explanatory notes on the various grades. Chicago distributors listed include Berkshire Papers, Graham Paper Company, Messinger Paper Company, Midland Paper Company, Moser Paper Company, Parker, Thomas & Tucker, Bradner Smith & Company, Swigart Paper Company, Whitaker Paper Company and James White Paper Company.

Paper Men To Help Finland

Chicago paper executives are exhibiting a keen interest in the campaign to raise funds for Finland which is being headed by D. C. Everest, president of the American Paper and Pulp Association. Local executives indicated agreement with the thought that the paper industry has more than a sentimental interest in the fate of Finland through contacts with Finnish manufacturers who have supplied a substantial portion of the wood pulp supply of this country.

Graham Co. Adds To Line

The Graham Paper Company has recently added to its lines Detroit Embossed Cover made by the Detroit Sulphite and Paper Company, and Empress Offset Enamel, manufactured by the Appleton Coated Paper Company. Local reports show that the Blunden-Lyon Company have recently added Cashiers Safety, a popular line made by the Perfect Safety Paper Company.

Paper Containers Help Milk Sales

Dr. D. B. Peck, president of the Bowman Dairy Company, one of Chicago's largest milk distributors, reported this week that introduction of larger milk containers in the suburban Chicago areas was meeting with most encouraging acceptance. The company introduced the two quart and gallon containers about January 5. Sales have advanced about 20 per cent with indications that this represented, in part at least, an increased milk consumption. Dr. Peck stated that the operation is still in an experimental stage with the customer as well as the company. Experience in other cities shows that definite conclusions cannot be drawn from the first two or three months of the new operations. In this period, Dr. Peck pointed out, customers are experimenting changing back and forth from the larger units to the single quarts.

New Rates On Paper Milk Containers

The intercoastal Steamship Freight Association has docketed a proposal for varying rates on paper milk containers west bound. These include 75 cents, 24,000 pound carload minimum; 60 cents 36,000 pound carload minimum; 55 cents, 60,000 pound carload minimum and 36 cents 100,000 pound carload minimum. These rates, according to Chicago reports, are now applicable to solid fibreboard boxes.

Speaking of Nice Orders—How Is This!

The Government Printing Office has just awarded the Mudge Paper Company, Baltimore, Md., a spot order for ten cars of 50 per cent Rag White Ledger Paper, all of which is to be made and shipped promptly.

Paper Mills to Hold Three Safety Meetings

Outstanding Safety Record Made By Mills and Converting Plants At Neenah and Menasha, Wis.—Annual Meetings This Year To Be Held In Two Cities Beginning January 23 — Paper Men Elected To Banks.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., January 15, 1940—The outstanding record of paper mills and converting plants at Neenah and Menasha, Wis., in the field of safety is made because education and effort along these lines are never relaxed. The annual safety meetings, three in number, will again be held this year by the two cities, using this time a sectional plan by which those engaged in various phases of work will have their own meetings, to be followed by a general meeting for all groups.

In the first of these meetings January 23, Earl Hill, Gilbert Paper Company, will be chairman of the electrical and power section; H. P. Thompson, Kimberly-Clark Corporation, materials handling in plant; John Michie, Gilbert Paper Company, preparation of stock.

To Hold Second Meeting February 27

The second meeting will be February 27, with the following among the chairmen: Herbert Vogel, Marathon Paper Mills Company, maintenance; Howard Aderhold, Marathon Company, paper machines; Melvin Buxton, Marathon Company, fumes and gas; Donnie Brown, Kimberly-Clark, personal hygiene.

On March 26, the chairmen will be: Dan Howman, Kimberly-Clark, construction; Melvin Redlin, Neenah Paper Company, converting and finishing; Kay Kuchenmeister, Kimberly-Clark, women in industry. Other industries also will be represented by chairmen.

Included on the general committee are: A. C. Haselow, Gilbert Company; C. B. Anderson, Central Paper Company; Edward Page and John C. Simonich, Kimberly-Clark; John Pinkerton, Gilbert Company; Leo Schubart, Neenah Paper Company, and R. M. Sensenbrenner, George A. Whiting Paper Company.

Chairmen of General Meetings Announced

Chairmen of the general meetings will be: January 23, Francis F. Rooney, Banta Publishing Company; February 27, Walter E. Strong, Marathon Mills, and March 26, John C. Simonich, Kimberly-Clark. Vocational schools of Neenah and Menasha, and H. A. Klemm, of the Wisconsin Industrial Commission, are cooperating.

W. K. Gerbrick Heads Central Paper

W. K. Gerbrick was elected president of the Central Paper Company, converters, Menasha, Wis., at the annual meeting January 10. He succeeds George Banta, Jr. Flossie H. Gerbrick was elected vice-president, and Stuart E. Thompson, secretary-treasurer.

The corporation has filed with the Secretary of State an amendment to its articles of incorporation changing the number of stockholders on the board of directors from five to three. Mr. Gerbrick was formerly secretary of the company.

Paper Men Elected to Many Banks

Numerous paper mill executives were reelected officers and directors of various banks in the Fox River Valley at the annual metings held during the last week. Among these are:

First National Bank, Neenah, Wis.: Vice-president, C. A. Babcock, president of Wisconsin River Paper and Pulp Company; directors, J. N. Bergstrom, president and treasurer of Bergstrom Paper Company; D. K. Brown, vice-president and general manager of Neenah Paper Company; C. B. Clark, president, Riverside Paper Corporation, and F. J. Sensenbrenner, president, and Ernst Mahler, vice-president, Kimberly-Clark Corporation.

National Manufacturers Bank, Neenah, Wis.: Vice-presidents, S. F. Shattuck, vice-president, Kimberly-Clark Corporation, and A. C. Gilbert, president, Gilbert Paper Company.

First National Bank, Appleton, Wis.; Vice-president, C. B. Clark, president, Riverside Paper Corporation; directors, Charles S. Boyd, Appleton Coated Paper Company; W. E. Buchanan, president, Appleton Wire Works; F. J. Harwood, president, Appleton Woolen Mills; F. J. Sensenbrenner, president, Kimberly-Clark Corporation; Karl E. Stansbury, president, Thilmany Pulp and Paper Company, and William C. Wing, formerly president of Fox River Paper Company.

First National Bank, Menasha, Wis.; Directors, Frank B. Whiting, president, and R. M. Sensenbrenner, vice-president and general manager, George A. Whiting Paper Company; John Stevens, Jr., vice-president, Marathon Paper Mills Company, and Hugh Strange, secretary-treasurer and general manager, John Strange Paper Company.

Bank of Menasha, Menasha, Wis.; Directors, F. E. Sensenbrenner, assistant secretary-treasurer, Kimberly-Clark Corporation; Paul Strange, ice-president, John Strange Paper Company, and R. J. Fieweger, treasurer, Wisconsin Tissue Mills.

At Wausau, Wis., C. C. Yawkey, chairman of the board of Marathon Paper Mills Company was reelected a director of the First American State Bank.

W. R. Harwood to nter Automobile Field

William R. Harwood, formerly associated with Thilmany Pulp and Paper Company, Kaukauna, Wis., has purchased the Acme Body Works, Appleton, Wis., and will hereafter be engaged in the manufacture of truck bodies. He was employed by Thilmany company for a number of years.

Paper Making in North and South

HUDSON FALLS, N. Y., January 15, 1940—An exhibit showing the manufacture of paper products at the Georgia plant of the Union Bag & Paper Company was presented this week before the Glens Falls Rotary Club by True M. Avery, vice president in charge of manufacturing. The motion pictures were of particular interest in this section because of the striking differences they reveal between paper-making and bag-making operations at the local plant and at Savannah. The latter plant is turning out more than twelve million bags a day and is now being enlarged in order to increase the output.

Philadelphia Associations Elect Officers

Harry M. Bailey Elected President At Annual Meeting of Philadelphia Waste Merchants Association — Philadelphia Paper Trade Association Elects Officers At Annual Meeting At Downtown Club — Other News.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., January 15, 1940—At the annual meeting of the Philadelphia Waste Merchants Association held at the Broadwood Hotel, the following officers were elected for the current year.

President, Harry M. Bailey, of the Hemingway Company, Vice President, Arthur L. Feierman, Treasurer, Wm. L. Simmons, of L. Simmons & Sons, Secretary, Dominic A. Di Santi, of Alexander Di Santi & Son.

Executive Committee: John Beitchman, of A. Beitchman & Sons, George A. Di Ienno, Wm. J. McGarrity, Jr., Louis Bantiveglio, of B. Bantivoglio's Sons, Peter Di Biaso, of The Keystone Waste & Wiper Company, Morris Mossman, of Mossman Brothers and Edward Corner.

Arthur L. Feierman, chairman of the banquet committee, announced that the annual banquet of the Philadelphia Waste Merchants Association will be held on Tuesday, February 6, 1940 at the Benjamin Franklin Hotel, 9th & Chestnut streets, Philadelphia, Penn. Members of the banquet committee are as follows: Arthur L. Feierman, chairman, George French, of Castle & Overton Company, Mr. McNamee, of Penn Paper Stock Company, Joseph O'Neill, of Patrick O'Neill & Company and Morris Mossman, of Mossman Brothers.

The banquet is expected to surpass all others which the Association has given. An excellent dinner will be served, and the banquet committee promises many surprises including novelties, gifts, a fine floor show with outstanding talent and the promise that all who attend will be highly rewarded. The cost per plate is $5.

Trade Association Holds Annual Meeting

A full attendance was on hand at the annual meeting of the Paper Trade Association of Philadelphia, held on January 10, in the Downtown Club. Luncheon was served promptly at 12 o'clock, after which the election of the Board of Governors took place, as follows:

Fine paper: LeRoy S. Bishop, secretary-treasurer, Raymond & McNutt Company; Ross W. Fishburn, vice president and general manager, Whiting-Patterson Company; E. T. Walter, secretary-treasurer, Wilcox-Walter-Furlong Paper Company; Ralph Luff; George W. Weaver, vice-president and manager, Garrett-Buchanan Company, and Myer Magil, head of Penn Card and Paper Company.

Wrapping paper: Cecil Bentley, owner, Terminal Paper Company; W. B. Killhour, president, Quaker City Paper Company; Nathaniel Saxe, owner, Saxe Paper Company; T. H. B. Smythe, president, The J. L. N. Smythe Company; George K. Hooper, president, Hooper Paper and Twine Company, and C. A. Wilder, Wilder Brothers.

Immediately following the adjournment of the annual meeting, the Board of Governors met and elected the following to serve as officers of the Paper Trade Association of Philadelphia for the same period: Nathaniel Saxe, president; E. T. Walter, first vice-president in charge of fine paper division; C. A. Wilder, 2nd vice-president in charge of wrapping paper division; W. B. Killhour, Jr., 3d vice-president in charge of bags; Cecil Bentley, secretary.

President-elect Saxe paid a very fine tribute to retiring president W. B. Killhour for the fine work he had done for the Association, srtessing particularly his activities in the National Association.

Scott Paper Issues New Booklet

A new booklet "Scientific Washroom Service" has just been released by the Scott Paper Company, Chester, Pa. The booklet, based on an intensive study of hundreds of industrial, public and institutional washroom installations, offers a helpful advisory service which is available without cost to architects, executives, plant superintendents and building managers. The recommendations which the booklet contains will be definitely helpful in providing improved washroom service.

Dr. Kingdon to Address Salesmen

The annual luncheon of the Salesemen's Association of the Paper Industry will be held in the Grand Ballroom of the Waldorf-Astoria Hotel, New York, on Tuesday, February 20, 1940. The luncheon committee headed by Bill Raymond which is arranging this affair has all the details well in hand. The guest speaker will be Dr. Frank Kingdon, president of the University of Newark, who broadcasts twice a week over the Mutual network on a programme, entitled "Unsung Americans", which is devoted to the interpretation of democracy. At present Dr. Kingdon is making a study of anti-democratic forces in the United States and is also serving as educational director of the Citizenship Educational Service. On December 30, 1939, he was awarded the Pi Lambda Phi gold medal given annually to the American judged to be the outstanding interpreter of humanitarianism and brotherhood for the year. He is rated as one of the most forceful and inspirational speakers in this country.

Reservations are now being received by E. O. Merchant, secretary, 112 East 42nd street, New York.

Manufacture of Paper Board

The Manufacture of Paper Board, by Norbert G. Rennicke, is a 47-page booklet, the text of which first appeared in installments in *Fibre Containers*, published at 228 North La Salle street, Chicago, Ill. Mr. Rennicke has presented the subject clearly and in sufficient detail to give the reader a good knowledge of the various steps in the manufacture of paper board. The contents include grades of the finished product, furnishes, raw materials and the manufacture of paper board on cylinder and Fourdrinier machines.

Delaware Valley TAPPI Discusses Power Plant Engineering

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry held a dinner meeting at the Engineers' Club of Philadelphia on January 12, C. M. Connor, Chairman, presiding. Mr. Connor read an invitation from S. C. Wentz, Chairman of the Pa., Del., N. J. Division of the Superintendents' Association to hold a joint meeting in the Spring.

The next meeting of the section will be held on February 9, J. R. Atwater, Dill & Collins, Inc. will talk on "Costs and Cost Reduction".

E. T. Street introduced Samuel Blum, member of the H. M. Wilson Co., Consulting Engineers, of Philadelphia who spoke on "Power and Steam for the Paper Mill".

The talk was a step by step analysis of existing conditions in a hypothetical plant, followed by a summation of possibilities for economic betterment by means of superimposing thereon a high pressure and temperature boiler and turbine. The subject was illustrated by means of slides and of particular interest was the use of steam distribution diagrams on which the analysis and economic study developed.

The speaker pointed out that few industries lent themselves more readily to the production of by-product power than the paper mill, especially those mills which do not make the pulp they use. If we could consider electric drives for the paper machines in such plants, then steam would be required only for heating beater water, heating buildings and for paper drying. The pressure required for drying may be as low as 5 pounds and rarely exceeds 40 pounds, and even with boilers of moderate pressures the differential between initial and final pressure required for process would be sufficient to generate current economically.

With the development of high pressure and high temperature boilers, the pressure differential above required existing paper plant pressures became available, and with the further perfection of multiple extraction turbines, it is now possible to superimpose a steam and electrical plant on top of an existing plant. Steam is thus supplied for all purposes, as was done by the original low pressure boilers, but this steam in its drop from the higher boiler pressure through the turbine, produces the required kw. at a loss of a relatively small part of its heat content.

The heat chargeable to current with this arrangement is astonishingly low, even when compared with the most modern Central Station, being as low as 5000 B.t.u. per kw.h. Tests cited for the Gilbert Station, near Easton, Pa., operating on 1250 lb. throttle pressure show an input of 11,950 B.t.u. per kw.h.; and the best that is expected, even with the mercury-steam cycle is 9460 B.t.u. per kw.h.

The approach and line of reasoning employed in determining the most suitable pressure and temperature for which the new boiler and turbine should be designed, was graphically developed by further use of diagrams. Of particular interest was the point emphasized in this procedure, i.e., there is a certain minimum amount of steam which must be produced for plant purposes, regardless of how little the new turbine would require for producing the plant electrical needs. Having determined these minimum needs, it becomes obvious that even though the new unit could be designed for pressures and temperatures which would permit the production of kw. needs with less than these minimum steam requirements, it would apparently be folly to spend money for such equipment, then find that steam must be passed through a reducing valve to meet process needs. A pressure of 600 lb. limiting the equipment to this pressure group was in this case proven to be more suitable than a higher pressure which would require equipment in the 900 lb. grouping.

The speaker concluded by showing slides of several recent installations which evidenced that the economic results shown in this hypothetical case were attainable.

Among those present were: Lionel M. Sutherland, C. W. Hoffman, Vincent F. Waters, Jos. Elman, A. M. Cooper, L. E. McGrath, John Cormie, R. H. Stevens, L. F. Derr, Truxton B. Ryan, R. Tutt, Jr., E. H. Koontz, Wm. M. Shoemaker, P. M. Loddengaard, Ward Harrison, C. M. Connor, J. D. Davis, E. T. Street, S. Blum, Lois Hans, Alan R. Boyd, Valdemar Jacobsen, R. M. Bates, Sam Reynolds, Ellis J. Barbee, F. W. Hirst, H. L. Becher, J. C. Shaw, M. D. Reuben, W. B. Morehouse, W. P. Quinn, J. S. Brookover, Ralph W. Kumler, W. E. Brow, A. E. Waugh, J. Edge, G. C. Walton, J. F. Halladay, J. S. Thompson, J. L. Granel 1st, J. L. Granel 2nd, James H. Fritz, L. Justin, Philip B. Taft, Ed. J. Albert, Harry Hulmes, M. Craig Maxwell, J. Carl Schmidt, Paul Easton, C. W. Rivise, Alex. McInnes, Jr., Harrison J. Farra, R. J. Stuart, Jr., S. G. Briscoe, Loy Bixler, E. Stokes, T. A. Howells, T. Von Thien, R. W. Kenneth Ulm, Thomas P. Field, J. J. Lofferty, J. D. Gercke, R. H. Dillinger, Roger W. Beales, Fred Streicher, F. H. Cronin, John H. Cronin, Emerson N. Glauner, J. N. Chesnutt, Lester W. Crouse, G. B. Martin and Edwin J. Schoettle.

To Ask Bigger Quota for Abitibi

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 15, 1940—In an attempt to restore prosperity to Iroquois Falls, Ont., a committee of employees of the Abitibi Power and Paper Company Limited, and local business men has been chosen to approach the Ontario Legislature during the present session. The committee will try to induce the provincial government to allocate a larger quota of newsprint production to the Abitibi plant at Iroquois Falls to help take up the slack of the past two years when slim pay rolls left workers and merchants in precarious financial straits. Figures compiled by the company show that during 1938 the mills operated for only 153 days and during 1939 for only 180 days. The committee says that the resulting payrolls threatened the solvency of the community.

BELOIT *Installations*

IN THE SOUTH

29 BELOIT PAPER MACHINES
COMBINED WIDTH 4958 INCHES
123 BELOIT PATENTED SUCTION ROLLS
9 BELOIT PATENTED HORIZONTAL DUAL PRESSES

THE BELOIT WAY BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS. **IS THE MODERN WAY**

BELOIT IRON WORKS BELOIT WISCONSIN

D. G. Moon Joins J. E. Sirrine & Co.

J. E. Sirrine & Co., nationally known consulting and designing engineers of Greenville, S. C., have added to their staff Major D. G. Moon, well known engineer with many years' experience in the paper industry beginning some time prior to the World War when he was connected with the design and construction of a number of important pulp and paper and hydro-electric plants in the Middle West.

Following his service overseas with the 122nd Engineers, Mr. Moon was associated with the Continental Paper and Bag Corporation as chief engineer in charge of the expansion of their mills in Wisconsin, New England and Canada. After acting in an executive capacity for the production operations, Mr.

D. G. Moon

Moon later joined the staff of the manufacturing department of the International Paper Company in New York.

In 1935, Mr. Moon was chief engineer for the Union Bag and Paper Corporation during the development of their Southern mill at Savannah, Ga. Upon its completion, he entered private practice as a consultant to the industry.

A member of TAPPI and first chairman of the Southern States Pulp and Paper Club, Mr. Moon has been active in furthering industrial relationship in the South. He directed the first Southern Paper Festival held in Savannah last year.

J. E. Sirrine & Co. maintain a permanent staff of 75 engineers and specialists and in the past 38 years have served in practically every phase of industrial development. Mr. Moon's experience still further extends and broadens their service to industry.

Brotherhood Dines at Glens Falls

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., January 15, 1940—About 75 members of the local branch of the International Brotherhood of Papermakers, employees of Finch, Pruyn & Co., attended a banquet here this week at which the officers for the year were installed. Among the new officers are Arthur Germain, president; Arthur Hurlbut, vice president; Louis J. Farkas, secretary; Clifford Hovey, treasurer; Edward Cool, George Bolduc and Charles Lavey, trustees. George Gilbert, the retiring president, was installing officer. Among the guests introduced by the toastmaster were Harold F. Bullard, assistant to the president of Finch, Pruyn & Co.; George K. Walker, superintendent of manufacturing; Fred Johnson, superintendent of the pulp mill; Alex Stewart, superintendent of papermaking; Arthur Mosher, assistant superintendent; Robert Moynihan, chemist, and Theodore Stoughton, a former mill official. Among those present with the longest years of service were J. Ira Chase, a foreman for forty years; Bernard Cronin, machine tender for 32 years, and Leonard Hartman, machine tender for 30 years. James O'Neil, who is more than 70 years old and now on the inactive list, was said to be the oldest member present. The arrangement committee consisted of Messrs. Farkas, Germain and Chase.

News of the Indiana Industry

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., January 15, 1940—L. E. Kennell, vice president of the American Paper Stock Company, Indianapolis, and Mrs. Kennell have gone to Miami and Fort Lauderdale, Fla., where they will spend two months.

H. C. Krannert, president and treasurer of the Inland Container Corporation, Indianapolis, has been elected a member of the board of directors of the Indianapolis Chamber of Commerce.

Possibilities of holding a Hoosier package contest will be considered by the Indianapolis Sales Executives Council January 22. Such competition might follow the plan of national package competitions held in former years, where beauty, economy, convenience and efficiency have been the judging factors.

Officials of the Indiana Paper Company, Indianapolis, will be invited to a dinner January 26 as given by the Chamber of Commerce, celebrating its own golden anniversary and given to officials of companies who have been in operation in the city fifty years or more. The paper company officials will be presented with scrolls commemorating their service to the city. Incidentally, C. D. Alexander, head of the Indianapolis branch of the Bemis Bag Company, will retire that night as president of the Chamber.

Improve Piermont Power Plant

The Robert Gair Company, Inc., New York, has under way for its Piermont Mill, Piermont, N. Y., the installation of a new high pressure 450-pound steam generator, having a capacity of 150,000 pounds of steam per hour, which will operate in conjunction with a new 2000 KW. topping turbine exhausting against 150 pounds gauge pressure. This new turbine will drive, through a reduction gear, a 1000 KW. A.C. generator. The boiler will also supply steam to an existing 2000 KW. bleeder condensing turbine driving a 2000 KW. A.C. generator. The steam generator will be fired with pulverized anthracite coal, pulverization being carried out in a Foster-Wheeler ball mill. The new steam generator and turbine will be housed in a new power plant structure. All contracts have been let and construction will be started in February.

Examines Pulpwood Resources

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 15, 1940—A special committee has been appointed by the Ontario Legislature to conduct an inquiry into the administration, licensing, sale, supervision and conservation of the natural resources of the department of lands and forests. The inquiry has begun and the first witness examined was Hon. Peter Heenan, Minister of Lands and Forests. He is also the chairman of the committee. Col. George Drew, opposition leader, in the Legislature, asked Mr. Heenan if an embargo on pulpwood exports to the United States would not result in the establishment in Ontario of American mills now using pulpwood from the province in their plants over the border. Mr. Heenan replied that the Ontario government had no "sledge hammer" to force anybody to establish a mill in Ontario. He added that none of the United States mills were wholly dependent on Ontario pulpwood and would turn to other sources of supply. Alternate to allowing the export of pulpwood was the decay of the forests because of the non-cutting of mature wood. Failure to cut this wood would increase fire hazards and hinder replacement growth. The permissible export was only up to the limit of surplus growth, that is, the amount of pulpwood that can be cut without impairing the "capital" of pulpwood. Export was also subject to the requirements of Canadian mills none of which would go without supplies because of exports.

The permissible annual cut, which in the Thunder Bay area is estimated at 740,000 cords a year, is determined by surveys. Mr. Heenan said that it was his desire to give all help so that the committee might submit constructive recommendations to the government. Proration of newsprint tonnage among Ontario mills was the chief "headache" for his department said Mr. Heenan as he outlined the general plan of administration.

Affairs of the defunct Lake Sulphite Pulp Company and transactions between the Department of Lands and Forests and the Abitibi Power and Paper Co. are among the subjects which will be given a thorough airing by the committee at forthcoming sittings.

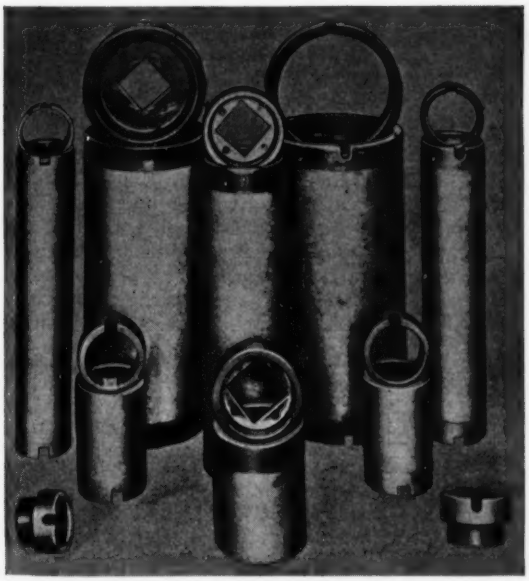
Specification for Evaporator Tubes

The Steel and Tube Division of The Timken Roller Bearing Company has just released a new specification which prescribes the requirements for black liquor evaporator tubes.

Timken metallurgists used actual working data, secured from many paper mills in the United States and Canada during the last five years, to prepare this specification. It establishes to definite limits the chemical composition of several popular alloy types together with provisions for check analyses and tolerances. It specifies hardness, flaring and hydrostatic testing requirements.

A schedule set-up shows the number of each of the various tests required and methods of testing used by the mill inspection and metallurgical departments before tubes are released to the customer.

Copies of the black liquor evaporator tube specification are available upon request.



ELIXMAN

C Straight wound paper cores made in sizes from 2" to 10" inside diameter with any thickness wall required. **C**

A Long draw protected slot caps of heavy gauge steel in all standard sizes. **O R**

P Heavy duty caps with reenforced square hole. This new patented feature of reenforcement gives added strength and durability. **E**

S **S**

Samples of caps or cores will be gladly submitted.

ELIXMAN PAPER CORE COMPANY, INC.

CORINTH, N. Y.

FINANCIAL NEWS

New York Stock Exchange

High, Low and Last for the Week Ending January 17, 1940

	High	Low	Last
Armstrong Cork Co.	40½	37	38¼
Celotex Corp.	10¾	10	10
Celotex Corp., pf.	62	62	62
Certain-Teed Products Corp.	6⅜	6⅜	6⅜
Certain-Teed Products Corp., pf.	30	29	29
Champion Paper & Fibre Co.	25¾	24⅛	24⅛
Champion Paper & Fibre Co., pf.	102	102	102
Congoleum-Nairn Co.	23¾	22½	22⅞
Container Corp. of America	16½	14⅞	15⅛
Continental-Diamond Fibre Co.	6⅞	6⅝	6¾
Crown-Zellerbach Co.	16⅛	15	15⅜
Crown-Zellerbach Co., pf.	92	90½	91
Flintkote Co.	19¾	18¼	18¾
Robert Gair	3⅝	3¼	3½
Robert Gair, pf.	16⅝	15	15
International Paper & Power	13⅜	11⅞	12¼
International Paper & Power, pf.	54⅝	51⅜	52½
Johns-Manville Corp.	74⅛	70½	71½
Johns-Manville Corp., pf.	132	124	124
Kimberly Clark Corp.	36½	35	35
MacAndrews & Forbes	35	34¼	34¼
MacAndrews & Forbes, pf.	134	133	133
Masonite Corp.	39	36¼	36¼
Mead Corp.	10¾	10	10¼
Paraffine Companies, Inc.	41½	41½	41½
Rayonier, Inc.	18⅜	16	16
Rayonier, Inc., pf.	27½	27	27
Ruberoid Co.	19½	18⅛	18⅛
Scott Paper Co.	47⅛	46½	47
Scott Paper Co., pf.	115½	115½	115½
Sutherland Paper Co.	29	28⅜	29
Union Bag & Paper Corp.	14⅜	12⅛	13
United Paperboard Co.	5	4¾	4¾
U. S. Gypsum Co.	86	82½	84¼
U. S. Gypsum Co., pf.	181	179	179

New York Curb Exchange

High, Low and Last for the Week Ending January 17, 1940

	High	Low	Last
American Box Board Co.	6½	6⅛	6⅛
Brown Co., pf.	25¾	22¾	23½
Great Northern Paper	44¼	44	44
St. Regis Paper Co.	3	2¾	2⅞
St. Regis Paper Co., pf.	62½	59	62½
Taggart Corp.	5½	4⅞	5

Waterfalls Mills Change Ownership

A deal has just been completed involving a change in ownership of Waterfalls Paper Mills which were previously owned by Aktieselskapet Borregaard, one of the largest pulp and paper manufacturers in Europe, who in 1920 bought what was then the Poland Paper Company, and have operated it since that time. Negotiations which have been going on for several months were completed last week, resulting in the acquisition of Borregaard's holding in Waterfalls by an American group.

At a meeting of the new board of directors at Mechanic Falls on Saturday, January 6, 1940, K. O. Hohle was reelected president. At the same time the following new officers were elected: Daniel J. Walsh, Sr., vice-president, James G. Crump, treasurer and general manager, and Frederick E. Thorpe, assistant treasurer. Members of the new board of directors are also Sidney A. Bailey, Daniel J. Walsh, Jr., and Rolf G. Westad. Roger V. Snow is secretary.

The company will continue operations of its plant at Mechanic Falls, Maine, generally along the same lines as heretofore, making sulphite bonds, ledgers, text, cover, index offset, papeterie and similar grades of paper, featuring Waterfalls well-known line of mill brands, as well as specialties. The plant has a yearly capacity of 18,000 tons and employs regularly about 300 people.

Continuing the company's policy, sales will be made to merchants and converters throughout the United States, and as previously will be handled from the sales offices at 21 East 40th street, New York City.

To Make Yeast from Pulp By-Product

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 15, 1940—A new factory for the manufacture of yeast from the by-product of wood pulp will be constructed in Thorold, Ont., by the Best Yeast Company. The plant will be on the ground leased from the Ontario Paper Company which is expected to supply the Best Yeast Company with 10,000,000 gallons of waste pulp liquor annually. The contract for the erection of the plant has been let to the Foundations Company of Toronto. The plant is expected to bring relief to the dumping of wood pulp waste in the Welland canal as the process will render the discharge less harmful. The Best Yeast Company operate a similar plant in Liverpool, Nova Scotia.

S. D. Warren Co. Raises Wages

[FROM OUR REGULAR CORRESPONDENT]

WESTBROOK, Me., January 15, 1940—The S. D. Warren Company has made an increase in wages which will restore the highest hourly wages ever paid at the Cumberland Mills (Me.) plant and the Copsecock Mills of the company at Gardiner, Me., according to an announcement by John E. Hyde, vice-president of the company. The new rates are the same as the peak rates paid in July, 1937. One-half of the 10 per cent cut of two years ago was returned to employees in January, 1939, and the remaining half is restored by the new rates, effective January 1, 1940, and included in the checks last week.

A. P. W. to Adjust Funded Debt

Holders of more than 96 per cent of outstanding twenty-five year 6 per cent convertible notes of A. P. W. Paper Company, Inc., have assented to the plan of voluntary adjustment of funded debt, and have agreed to accept interest payments of an income basis in lieu of the fixed interest charge for the entire period to maturity in 1955, it was announced on January 13.

Masonite Earns $441,059

[FROM OUR REGULAR CORRESPONDENT]

WAUSAU, Wis., January 15, 1940—Masonite Corporation reports net profits for the 16 weeks ended December 23, 1939 of $441,059, equal after preferred dividend requirements to 77 cents a share on common stock. This compared with $219,512, or 35 cents a common share, for the corresponding period in 1938.

Oxford Paper Co. Advance Wages

[FROM OUR REGULAR CORRESPONDENT]

RUMFORD, Me., January 15, 1940—Oxford Paper Company announces a 5 per cent wage increase. The increase will affect several thousand employees.

Indianapolis Demand

INDIANAPOLIS, Ind., January 15, 1940—The local paper trade seems to be recovering from the holiday and inventory slump and the last week saw a gradual expansion in business. Volume was cut down some because of severe weather, the temperatures hovering below zero and showing this section to the coldest wave in four or five years. Roads have been excessively bad, due to heavy snow before the cold wave and transportation has been hampered to some extent.

The outlook for building paper and roofing is very bright, according to those who exhibited at the annual convention last week of the Indiana Lumber and Builders' Supply Association. A large number exhibited and reported quite a volume of orders for late February and March delivery. Stocks in retail hands are low, but apparently are well balanced and the dealers will not begin receiving new stocks until later in the winter. The outlook for a good building volume is good.

The fine paper market in all grades showed a little more life last week, with ledgers, covers and bonds being in some demand. Prices are firm with every indication of advances if there are any changes made. Large municipal and county printing contracts are to be awarded shortly and the successful printers will be in the market immediately before there is much change in price.

The container field, which slowed down materially during the holidays, has shown increased animation. Factories are slowly increasing production and executives report a good outlook for late winter and spring.

Common paper demand continues rather dull, particularly the wrapping paper and bag market. Demand from retail sources has not recovered from the heavy buying during and before the Holidays and it is expected it will be a couple or more weeks before there is any favorable change. Tissues continue to move in nice shape with a firm price.

Paper stock and rag demand has been poor.

December Newsprint Statistics

Production of newsprint in Canada during December, 1939 amounted to 240,656 tons and shipments to 264,620 tons, according to the News Print Service Bureau. Production in the United States was 77,836 tons and shipments 78,283 tons, making a total United States and Canadian newsprint production of 318,492 tons and shipments of 342,903 tons. During December, 26,313 tons of newsprint were made in Newfoundland, so that the total North American production for the month amounted to 344,805 tons. Total production in December 1938 was 312,363 tons.

The total North American output of newsprint paper in 1939 was 4,116,749 tons, of which 2,869,266 tons was made in Canada, 939,442 tons in the United States, and 308,041 tons in Newfoundland. The Canadian output was 9.3 percent more than in 1938, that in the United States 14.6 percent more, with a gain of 14.8 percent in Newfoundland, making a total continental increase of 403,710 tons, or 10.9 percent.

Stocks of newsprint paper at the end of December were 169,502 tons at Canadian mills and 12,952 tons at United States mills, making a combined total of 182,454 tons compared with 206,865 tons on November 30, 1939 and 180,021 tons on December 31, 1938.

"NON-USERS ARE THE LOSERS"

FINISH AND SPEED

TENAX FELTS

ENCOURAGING SIGNS

Going into 1940 we see tangible signs of activity; we are busy on orders in hand for TENAX FELTS; new mills are starting production; old mills are speeding up.

For TENAX FELTS we make this promise: they will serve the trade as productively and profitably as they have for 50 years. For ourselves we promise interested cooperation and service.

"Non-Users Are The Losers"

LOCKPORT FELT COMPANY

NEWFANE, N. Y.—U. S. A.

CONSTRUCTION NEWS

Lancaster, Pa.—The Armstrong Cork Company, manufacturer of insulating board, cork board and other paper board products, has preliminary plans under way for expansion and improvements in Lancaster mill, including construction of new addition, with installation of equipment for large increase in present capacity. It is understood that work will be carried out in the spring. Cost is reported close to $500,000, with equipment.

Chicago, Ill.—Irving L. Odman Corporation, 61 West Hubbard street, commercial paper products, wrapping papers, etc., has leased the entire five-story and basement building at 108-10 West Kinzie street, totaling about 30,000 square feet of floor space, and will equip at once for new plant. Company will remove to new location at early date, where considerable increase in present facilities will be provided.

Williamsport, Pa.—The C. A. Reed Company, Chestnut street, manufacturer of crepe and other paper stocks, is arranging early call for bids on general contract for proposed new addition to mill, recently referred to in these columns, to be two-story and basement, 80 x 180 feet, reported to cost over $60,000, with equipment. Clarence E. Wagner, 51 West Third street, Williamsport, is architect.

Neenah, Wis.—The Kimberly-Clark Corporation, manufacturer of cover papers, wall papers and kindred stocks, has plans under way for new two-story and basement addition, 76 x 240 feet, to mill at Neenah, including remodeling and improvements in portion of present plant. Cost reported over $100,000, with equipment. This is part of recently announced expansion and improvement program of company to be carried out in 1940.

Middletown, N. Y.—The Middletown Paper Box Company, Inc., recently organized with capital of 100 shares of stock, no par value, to manufacture paper boxes and containers of various kinds, will take over and succeed to the company of same name, with local plant at 45 Smith street. New organization plans expansion in operations.

Baltimore, Md.—The Maryland Fibre Products Company, Inc., Frederick avenue and Willard street, manufacturer of fiber goods, has concluded arrangements for acquisition of three-story industrial building at corner of Landwehr and Lipps lanes, and will occupy at once for new plant, to replace works at first noted location, recently damaged by fire. Last noted plant will not be rebuilt at this time, as previously reported in these columns.

Chicago, Ill.—The Harrison Box Company, 2007-11 South Marshall boulevard, manufacturer of corrugated paper boxes and containers, has leased space in building at 4039 South Winchester avenue, totaling about 35,000 square feet of floor space, and will occupy for plant. Present works will be removed to new location and capacity increased.

Greenville, S. C.—The American Viscose Corporation, 200 Madison avenue, New York, N. Y., manufacturer of viscose rayon products, is reported considering the construction of a new mill in vicinity of Greenville, where it is expected to select site at early date. Proposed plant will comprise several large one and multi-story units, storage and distributing buildings, power house, machine shop and other mechanical departments, and is estimated to cost over $5,000,000, with machinery. Company is now operating plants at Marcus Hook, Pa., Meadville, Pa., Parkersburg, W. Va., and Roanoke, Va.

Delair, N. J.—The Kieckhefer Container Corporation, manufacturer of corrugated boxes and containers, has asked bids on general contract for improvements in main mill at Delair, including new roofing on manufacturing building and other work. Carson & Carson, Commercial Trust Building, Philadelphia, Pa., are engineers.

Emeryville, Cal.—The Paraffine Companies, Inc., 475 Brannan street, San Francisco, Cal., manufacturer of building papers, composition roofing and kindred paper and felt goods, has awarded general contract to Cahill Brothers, 206 Sansome street, San Francisco, for proposed new addition to branch mill at Emeryville, Cal., recently referred to in these columns, and will proceed with superstructure at once. It will be one-story, reported to cost close to $60,000, including equipment. Completion is scheduled early in the spring. Leland S. Rosener, 233 Sansome street, San Francisco, is engineer.

Mechanic Falls, Me.—The Waterfalls Paper Mills, Inc., manufacturer of bond, ledger and other writing paper stocks, coated papers, etc., in which control heretofore has been held by Aktieselskapet Borregaard, Oslo, Norway, has been acquired by American interests, headed by K. O. Hohle, president and treasurer of present company, which will take over ownership of property at once. Operations will be continued at plant as in the past, specializing in same character of paper production, with employment of about 300 persons in different departments. New company is headed by Mr. Hohle as president; Daniel J. Walsh, Sr., vice-president; James G. Crump, treasurer and general manager; and Frederick E. Thorpe, assistant treasurer. The Norwegian organization noted has been in control of mill for the past 20 years, purchasing the property in 1920, when it was known as the Poland Paper Company.

New Companies

New York, N. Y.—The F. & G. Paper Supply Corporation has been incorporated with capital of $20,000, to deal in paper products of various kinds. New company is represented by B. Robbins, 25 Warren street, New York, attorney.

Philadelphia, Pa.—The Leemont Corporation, care of Corporation Guarantee & Trust Co., Citizens' Bank Building, Wilmington, Del., has been chartered under Delaware laws, with capital of 1000 shares of stock, no par value, to deal in paper stocks, coating materials for paper, etc.

Chicago, Ill.—The Mill Paper & Supply Company, 4756 Drexel boulevard, has been organized with capital of $10,000, to deal in waste paper stocks, etc. The incorporators are V. S. and L. Rubenstein.

Shooting Pigment Problems Is Our Job

Given a chance, TITANOX pigments will do everything that may be required of them. But the makers of these better pigments don't stop at that. They seek to prove that TITANOX is the logical pigment for economically producing opacity, whiteness and brightness. And how can they prove it more convincingly than by helping paper manufacturers with their various pigment problems?

We welcome all such problems. We are eager to solve them; for in the solution of each one the superior adaptability of TITANOX is demonstrated.

Whatever your *pigment problems may be, our Service Department will be pleased to give you the benefit of its knowledge and experience.*

In the TITANOX Paper Service Laboratory, all paper and pigment problems are approached scientifically—in the light of newest information as developed in our Research Laboratories—not with the idea merely of relieving an individual situation, but rather with the purpose of applying the ever-growing fund of knowledge on which the leadership of TITANOX pigments is founded.

TITANIUM PIGMENT CORPORATION

SOLE SALES AGENT

TITANOX

TRADE MARK

111 Broadway, New York, N. Y.
Carondelet Station, St. Louis, Missouri
National Lead Co. (Pacific Coast Branch),
2240 24th Street, San Francisco, Calif.

PAPER TRADE JOURNAL

Title Reg. U. S. Pat. Off.

Henry J. Berger
EDITOR

Vol. 110 January 18, 1940 No. 3

COMING EVENTS IN PAPER INDUSTRY

AMERICAN PAPER AND PULP ASSOCIATION, Sixty-third Annual Convention and meeting, Waldorf-Astoria Hotel, New York. February 19-22.

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY, Convention, Roosevelt Hotel, February 19-22.

SALESMEN'S ASSOCIATION OF THE PAPER INDUSTRY, Annual Meeting and Luncheon, Waldorf-Astoria Hotel, New York, Tuesday, February 20.

NATIONAL PAPER TRADE ASSOCIATION OF THE UNITED STATES, Convention, Waldorf-Astoria Hotel. New York. February 19-22.

NEW YORK ASSOCIATION OF DEALERS IN PAPER MILLS' SUPPLIES. Annual Banquet, Hotel Commodore, New York, February 20.

NEW ENGLAND SECTION. Technical Association of the Pulp and Paper Industry—Third Friday of each month at the Roger Smith Hotel, Holyoke, Mass.

DELAWARE VALLEY SECTION. Technical Association of the Pulp and Paper Industry—Second Friday of each month at the Engineers Club, Philadelphia, Pa.

LAKE STATES SECTION. Technical Association of the Pulp and Paper Industry—Second Tuesday of each month at the Conway Hotel, Appleton, Wis.

KALAMAZOO VALLEY SECTION. Technical Association of the Pulp and Paper Industry—First Thursday of each month at the Park, American Hotel, Kalamazoo, Mich.

LABOR RELATIONS ACT

The hearings now being conducted by the House Labor Committee in its investigation of the National Labor Relations Board, has revealed that voluntary arbitration between management and organized labor has failed in numerous cases to achieve a settlement deemed fair by both parties, and has failed to avert extremely costly strikes, such as the recent Chrysler tie-up in the automobile industry, to mention but one instance of the kind. The evidence already revealed by the investigations brings into more prominence the records underlying the decisions of the Labor Relations Board and serves to increase doubt in the merits of the Board's procedure.

When the National Labor Relations Act was introduced by Senator Wagner of New York in 1934 and enacted in 1935, it started an ever increasing number of interventions by the Federal Government in labor relations. The Act requires employers and labor union representatives to meet in conference and assumes that in bringing both parties together all differences can be settled. This expectation has failed to be realized and the basic labor disputes handled by the Board in the four years under the Act totals at this date 24,459 cases affecting 5,594,000 workers. The newspapers have printed so much information relating to the intrepretation of the Act and the decisions made by the Board, that it is common knowledge that a large increase in strikes has occurred during the operation of the Act and the inauguration of the National Labor Relations Board.

In the first three years of the operation of the Board, compared with the three preceding years prior to the Act, the survey conducted by the Chamber of Commerce of the State of New York, made public last October, stated that the number of strikes more than doubled. "In the three calendar years preceding the enactment of the National Labor Relations Act, 1932-1934, there were 4,392 strikes in the United States. In the three calendar years following its enactment, 1936-1938, there were 9,684 strikes or an increase of 120 per cent. The number of workers involved increased 12.7 per cent and the man-days idle increased 9.6 per cent in the latter period."

In its analysis of the strikes in the two periods the survey showed that in 1936-1938, when the Board was in operation, "The percentage of strikes settled by compromise between workers and employers decreased to an average of 28.4 per cent, compared with an average of 31.7 per cent in the earlier period. The percentage of strikes won by workers increased to an average of 44.1 per cent, compared with an average of 30.8 per cent in the earlier period. The percentage of strikes in which employers were victorious decreased to an average of 23.4 per cent, from an average of 33.8 per cent in the earlier period." The survey pointed out that the percentage of strikes for union recognition, which the National Labor Relations Act was expected to reduce, had materially increased since the Labor Relations Board was in operation.

The law states that it shall be the "policy of the United States to eliminate the causes of certain substantial obstructions to the free flow of commerce and to mitigate and eliminate these obstructions when they have occurred by encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association; self-organization and designation of representatives of their own choosing for the purpose of negotiating the terms and conditions of their employment or other mutual aid or protection."

Many recommendations that the present Labor Relations Act be revised have been made, and in presenting its suggestions for revision the Chamber of Commerce of the United States pointed out that the Act as administered by the National Labor Relations Board has "fomented class distinction and class hatred. By subjecting management to new risks and uncertainties, both as to rights and obligations, it has effectively prevented the expansion of existing facilities and the creation of new facilities so essential to the economic growth and development of this country."

What revisions, or amendments may come from the present investigations is uncertain but a new plan is now being formulated by Congressional leaders and officials in the Department of Labor. The plan to be submitted at the present session of Congress provides for compulsory mediation. This is not the same as

compulsory arbitration, which requires that the parties submit their differences to an outside arbitrator. Compulsory mediation is now required in the labor relations of railroads. The Railway Labor Act provides for notice of intention to strike, mediation first by the National Mediation Board and, if unsuccessful, a special committee appointed by the President. No strike is permitted by law until 30 days after the mediation committee has submitted its report.

It is now agreed that the administration of a mediation law must be separated from the enforcement of the Labor Relations Act and under the present set-up this work would be assigned to John R. Steelman, Director of the United States Conciliation Service. Two union organizations, The International Association of Machinists, and the Bakery and Confectionery Workers, affiliated with the American Federation of Labor, require their local branches to consult the Federal conciliation service before calling a strike. In his budget, President Roosevelt has asked Congress for $6,000,000 for operation of the Wage and Hour division for the current year, the labor board $3,150,000, and $350,000 or $50,000 more during the current year for expansion of the conciliation service. An improvement in the present labor law appears likely through revision in the Act and in changes in the membership of the Board.

Finnish Mills Running

New York, January 12, 1940

EDITOR: PAPER TRADE JOURNAL:—

In your issue of January 11, under the heading, Canadian Pulp and Paper Industry Improved, you state "Finnish Mills, of course, are not producing". In doing so you have inadvertently done a grave injustice to the gallant people of Finland, which may prove harmful to their interests.

Kymmene Aktiebolag, the largest paper mill in Finland, which we represent in this country is still operating, although at somewhat reduced output due to shortage of man power, and is still shipping, although naturally shipments are not quite as regular or as speedy as in normal times.

As your statement may cause grave concern to buyers in this country who have contracts with Finland, we hope you will be good enough to give publicity to this correction.

H. REEVE ANGEL & CO., INC.
L. C. F. Rain.

Finch, Pruyn & Co. Elect Officers

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., January 15, 1940—Maurice Hoopes was re-elected president of Finch, Pruyn & Co. at the annual meeting held last week at the office of the company. The others elected are George N. Ostrander, vice president and secretary, and Fred B. Chapman, treasurer. The board of directors for the year will include Mr. Hoopes, Mr. Ostrander, Mr. Chapman, Harold F. Bullard, Samuel Pruyn, Mrs. T. H. Foulds, Nellie M. Howe and Louis P. Brown.

Production Ratio Report

Based upon paper production reports to the American Paper and Pulp Association.

COMPARATIVE MONTHLY SUMMARIES[1]

Months	1939	1938	1937	1936	1935	1934
January	77.5%	63.9%	90.3%	76.1%	65.8%	.....
February	81.7%	68.7%	90.1%	77.9%	70.0%	.....
March	84.0%	69.6%	90.3%	76.0%	70.5%	.....
April	82.9%	68.3%	92.1%	82.3%	70.0%	.....
May	80.2%	69.0%	90.6%	81.6%	69.4%	.....
June	79.7%	66.0%	87.3%	80.7%	72.3%	.....
July	75.2%	72.0%	81.8%	77.3%	64.9%	.....
August	82.9%	77.2%	82.9%	81.5%	70.9%	.....
September	88.7%	76.3%	78.6%	80.5%	71.9%	58.2%
October	96.6%	82.5%	73.5%	87.6%	75.6%	64.7%
November	97.2%	79.6%	61.9%	88.0%	75.3%	61.7%
December	91.5%	74.4%	54.5%	85.9%	71.2%	59.6%
Year Average	84.9%	72.3%	80.6%	81.3%	70.5%	.....

COMPARATIVE WEEKLY SUMMARIES[1]

CURRENT WEEKS, 1939		CORRESPONDING WEEKS, 1938	
December 2	95.2%	December 3	78.8%
December 9	96.7%	December 10	77.6%
December 16	97.8%	December 17	81.3%
December 23	94.3%	December 24	75.9%
December 30	76.0%	December 31	62.8%
January 6, 1940	82.5%	January 7, 1939	70.0%

The following statistics show the number of mills reporting by ratio groups:

	Number of Mills Reporting—Current Weeks					
Ratio Limits	Dec. 2, 1939	Dec. 9, 1939	Dec. 16, 1939	Dec. 23, 1939	Dec. 30, 1939	Jan. 6, 1940
0% to 50%	42	34	37	29	55	35
51% to 100%	260	264	260	266	225	142
Total Mills Reporting	302	298	297	295	280	177

PAPERBOARD OPERATING RATIOS

Per cents of operation based on "Inch-Hours" reported to the National Paperboard Association.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July
1935	62%	68%	68%	63%	61%	66%	62%
1936	62%	67%	67%	70%	69%	70%	69%
1937	80%	86%	86%	88%	85%	77%	66%
1938	54%	60%	61%	57%	58%	56%	57%
1939	60%	67%	71%	69%	64%	67%	63%

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1935	67%	71%	77%	71%	61%	66%
1936	75%	78%	82%	80%	74%	72%
1937	74%	69%	65%	55%	45%	73%
1938	66%	66%	70%	65%	59%	61%
1939	72%	74%	84%	81%	....	....

Week end. Dec. 2, 1939—78%
Week end. Dec. 9, 1939—79%
Week end. Dec. 16, 1939—79%
Week end. Dec. 23, 1939—81%
Week end. Dec. 30, 1939—46%
Week end. Jan. 6, 1940—65%

[1] Production-capacity ratios are based upon six-day capacity ratings which are adjusted periodically to correspond with the ratings reported by individual companies. Ratios are subject to revision until all reports are received.

I. P. Gets Pulpwood at Corinth

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y., January 15, 1940—Large shipments of pulpwood are being transported here daily from Vermont, Hadley and other places to the International Paper Company. Many of the trucks are filled to capacity and it is estimated that about 150 enter this village daily over the county highway. Each truck transports about four cords of pulpwood on each trip, making a total of about 600 cords a day added to the huge pile now being stored for future use. Between now and spring it is estimated that between 30,000 and 40,000 cords of wood will be unloaded. About two-thirds of the pulpwood is taken to the main yard of the mill and the remainder is rapidly filling up the storage yards of the Curtis mill, used at present only as a power plant. A considerable portion of the pulpwood is being hauled here from around Arlington, Vt., although a small percentage is transported from points in the Adirondacks.

A NOVEL WAY TO SAVE MONEY

This old-fashioned mechanical bank, from a private collection, is called "The Darktown Battery". A coin is placed in the pitcher's hand. When a lever is pressed the pitcher throws the coin. The batter misses and the coin goes into the catcher's mitt which contains an opening to the bank.

THERE'S MORE THAN ONE WAY TO SAVE ON CHEMICALS, TOO!

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Section of the
Technical Association of the Pulp and Paper Industry

Edited by Ronald G. Macdonald, Secretary

The Use of Swamp Black Gum Sulphate Pulps for High Grade Papers

By Charles Carpenter [1] and G. A. Ritter [2]

Abstract

A preliminary report of papermaking characteristics of swamp black gum bleached sulphate pulps are described. Data are given for all stages of experimental production: pulping, bleaching, stock preparation and machine operation.

The swamp black gum *(Nyssa biflora)* of the southeastern United States is a pulpwood that has found limited use in soda, sulphate, sulphite, mechanical and semi-chemical processes. In the following the use of this wood as bleached sulphate pulp for strong high-grade papers is proposed. This proposal is based on results described herein which have been obtained in experimental operation at the Herty Foundation Laboratory. These results and observations will not be entirely new to the industry. The authors believe, however, that the presentation of this paper is warranted by the opportunity afforded to give swamp black gum the just recognition which its abundance and papermaking characteristics merit.

Wood

Pertinent pulpwood data of the swamp black gum are:

solid wood substance/rough cord = 70-75 cubic feet
dry weight/cubic foot green wood = 30-33 pounds

The wood is diffuse porous; fibers 1.3 to 2.3 mm. long, 1.8 mm. mean length. Holocellulose content of extracted wood is 72 per cent.

Pulping

Pulping was carried out in a 60-cu. ft. alloy steel digester equipped for both direct and indirect heating. Steaming was direct to maximum pressure, indirect thereafter. Cooks were blown at 40-50 pounds pressure.

A synthetic white liquor was employed that was prepared from technical sodium hydroxide and sodium sulphide. The backfill was fresh water except where indicated.

The pulps were washed in the blow-pit, screened on 10-cut flat plates and dewatered on an Oliver wet machine. Chemical and physical tests of unbleached pulps were made on representative lap samples.

Cooking and pulp data are assembled in Table I. Chemical ratios varied from 14 to 25 per cent active alkali; liquor ratios from 36 to 57 gallons (vol. total liquid/100-lb. dry wood). Both gradual and steep temperature-time gradients were followed. Duration of cooking ranged from one hour and fifty minutes to five hours. With but two exceptions the maximum temperatures were 170 deg. C. (100-lb. pressure).

Cooks were well-pulped with 16 per cent active alkali using backfill of either fresh water or black liquor (Cook 74). Three and one-quarter hours cooking time with this amount of chemical resulted in comparatively easy bleaching pulps at 48-50 per cent yields. Such pulps bleached in three or four stages with 3-6 per cent chlorine.

Bleaching

The bleaching equipment consisted of a 50-lb. rubber-lined chlorinator (Hooker) and a 250-lb. tile-lined beater. Chlorinated pulps were washed in a

TABLE I.—COOKING DATA—SWAMP BLACK GUM SULPHATE PULPS

	Chemical Ratios			Cooking Data: Duration				Unbleached Pulp Data: Per Cent Yield,			Black Liquor	
Cook No.	Active Alkali, lbs./100 lb. wood (1)	Sulphidity (2)	Initial Liquor Ratio, gal. /100 lb. wood	Hours to Max.	Hours at Max.	Total Hours	Deg. C Max.	Screened Pulp	Rejects	K No. (3)	Total Solids, lbs./gal.	Total Active Alkali, lbs./ gal. (4)
58	25	34	37	1¼	¼	2½	170	47	0.1	8.4	1.3	0.19
59	25	34	39	1	1½	3½	160	46	0.0	10.0	1.6	0.25
62	18	34	43	2¼	1¼	4¼	170	46	0.1	10.0	1.3	0.15
64	16	33	46	2½	2	5	170	47	0.2	10.8	1.1	0.09
65	14	33	54	2½	1¼	4¼	170	46	4.1	21.9	1.0	0.07
67	15	33	46	2½	2	5	170	49	0.5	12.5	1.0	0.08
68	16	32	45	2½	1	4	170	49	0.3	11.8	1.1	0.10
69	16	20	46	2½	½	3½	170	50	0.5	13.3	1.2	0.07
70	16	33	44	2½	¾	3¼	170	..	1.2	14.0	1.2	0.12
71	16	33	57	2½	¾	3¼	170	50	1.0	13.2	1.0	0.08
72	16	33	36	2½	¾	3¼	170	48	1.4	13.4	1.5	0.14
73	16	20	44	2½	¾	3¼	170	50	1.3	15.2	1.2	0.10
74	16	33	47	2½	¾	3¼	170	49	0.8	14.1	1.4	0.11
76	16	20	42	2½	2	5	170	50	0.1	10.4	1.3	0.10
80	16	33	41	1¾	½	1¾	172	48	2.2	12.9	1.1	0.13
Soda Cooks:												
63	18	..	41	1¼	3¾	5¾	170	44	0.2	11.1	1.2	0.09
75	18	..	44	2¼	3	6	170	46	0.2	9.8	1.2	0.11

Calculations based on oven dry weights.
(1) (2) TAPPI standard terms.
(3) P. B. C. permanganate number.
(4) By NH_4Cl distillation method.

[1] Member TAPPI; Chief Chemist, Southland Paper Mills, Lufkin, Texas.
[2] Member TAPPI; Plant Manager, Herty Foundation Laboratory, Savannah, Ga.

TABLE II.—BLEACHING DATA.

Unbleached Pulp		Multistage Bleaching Data						
No.	K Number	Per cent Cl_2 consumed Chlorination	Per cent NaOH applied Caustic Extraction	Per cent Cl_2 consumed Hypochlorite	Per cent Cl_2 consumed Hypochlorite	Acid Wash SO_2	Per cent Cl_2, Total consumed	G. E. Bleached Pulp, Brightness
58	8.4	1.5	..	1.7	0.1	++	3.3	72
59	10.0	1.5	..	1.8	0.2	++	3.5	71
62	10.0	2.2	..	1.2	0.1	++	3.5	75
64	10.8	2.1	1.0	0.6	0.2	++	2.9	77
67	12.5	2.6	..	1.4	0.2	++	4.2	75
68	11.8	2.6	..	1.0	0.1	++	3.7	71
69	13.3	2.7	..	1.4	0.3	++	4.4	73
70	14.0	3.2	..	2.1	0.2	++	5.5	70
71	13.2	3.2	..	1.6	0.1	++	4.9	79
72	13.4	3.2	..	1.5	0.2	++	4.8	75
73	15.2	3.8	..	2.6	0.2	++	6.6	74
74	14.1	3.3	..	1.6	0.2	++	5.1	76
76	10.4	2.0	..	1.0	0.1	++	3.1	77
80	12.9	3.3	3.0	0.8	0.1	+	4.2	79
Soda Pulps:								
63	11.1	2.4	..	1.9	0.3	+	4.6	73
75	9.8	2.3	..	1.2	0.2	+	3.7	74

blow-pit; caustic extracted and bleached pulps were washed in the beater.

Bleaching data are given in Table II. Pulps were chlorinated at 2½-3 per cent consistency. Duration of chlorination was 20 to 30 minutes at ca. 25 deg. C. and pH 2.1-2.8. Washing was acid. A correlation was noted between per cent chlorine consumed and permanganate number of the unbleached pulp.

Where employed, caustic extraction followed chlorination. This treatment was given at ca. 4½ per cent consistency for one hour at 45 deg. C. The caustic extraction effected both a reduction in total chlorine consumption and an improvement in final color.

The whitening of the pulps was accomplished in two stages of hypochlorite bleaching. Conditions of bleaching were: consistency ca. 4½ per cent, duration 4-8 hours, temperature 35 deg. C. and pH 8.5-9.5. The pH was maintained by the addition of caustic soda. A half hour acid soaking (pH ca. 4) with 0.2 per cent SO_2 followed the wash of the second hypochlorite bleach. Total chlorine consumed and unbleached pulp permanganate numbers were in good agreement. Brightness values ranged from 70 to 79[3].

[3] 2-lb. laboratory bleaches where there was no contamination from steel beater roll and bed-plate, and where higher consistencies were employed, resulted in bleached pulps of 77-85 brightness.

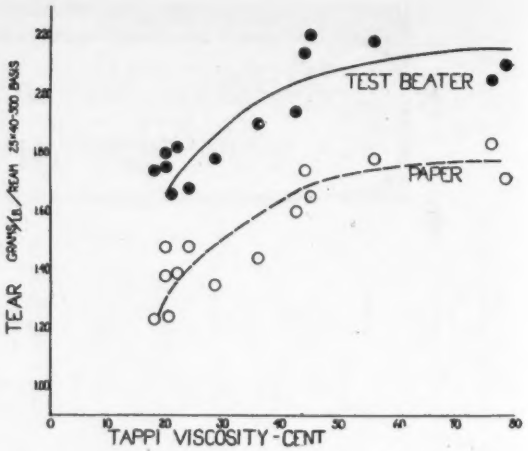


FIG. 1.

Pulp Characteristics

Results of physical and chemical tests on unbleached and bleached pulps are given in Table III.

Noteworthy were the high pentosan values of the bleached pulps and the correlation between cuprammonium viscosity and resistance to tear. In general, mullen and tearing strengths and folding endurance suffered but little, or improved, with bleaching.

Machine Runs

Papers were made on a right-hand Pusey Jones machine operating with a 31-in. by 33-ft. fourdrinier wire and nine 2-ft. driers. Speed was limited by the drying capacity to about 45 f.p.m.

Stocks were refined in a 75-lb. beater followed by brushing in a baby jordan, or entirely by one or two passes through the jordan. Approximately equal amounts of starch, filler, color, size and alum were added to each furnish. The pH was adjusted by the further addition of alum to the mixing-well. Tray and suction-box water was recirculated.

Machine operation data and paper characteristics are given in Table IV. Power for refining varied considerably with the character of the stock and to the extent to which the action was carried. The gum pulps formed well at relatively high freenesses, making possible tightly closed sheets with a minimum of cutting and refining action. As a consequence such

TABLE III.—CHEMICAL AND PHYSICAL CHARACTERISTICS OF PULPS

		Unbleached Pulp				Bleached Pulp						
		Beater Tests at 400 cc. SR; 25x40—500							Beater Tests at 400 cc. SR; 25x40—500			
Pulp Number	K Number	Mullen, pts./lb.	Tear, gram/lb.	Double Folds	Minutes	Per cent Alpha Cellulose (1)	Per cent Pentosans (2)	Viscosity (3)	Mullen, pts./lb.	Tear, grams/lb.	Double Folds	Minutes
58	8.4	0.90	2.00	500	65	92.5	14.4	20	1.00	1.80	1100	50
59	10.0	0.90	1.75	1400	70	93.3	15.4	24	1.00	1.70	1250	65
62	10.0	0.95	2.00	800	45	87.7	16.0	18	0.85	1.75	1000	40
64	10.8	1.05	1.75	1300	50	89.0	15.2	21	0.90	1.65	1100	40
67	12.5	0.85	1.75	1150	40	88.8	15.1	22	0.90	1.80	1300	45
68	11.8	0.85	1.85	600	40	89.5	16.0	36	0.85	1.90	1000	40
69	13.3	0.85	2.20	1300	55	93.2	15.8	44	1.05	2.15	2000	55
70	14.0	0.95	1.95	2100	50	90.0	16.7	56	1.00	2.20	1600	45
71	13.2	0.95	1.90	1300	50	89.9	16.4	76	1.00	2.05	2350	45
72	13.4	0.85	1.70	1000	45	86.6	16.3	29	0.90	1.80	850	35
73	15.2	0.85	1.85	1000	55	89.9	16.4	43	0.95	1.95	1650	45
74	14.1	0.90	1.70	1250	40	88.5	16.6	79	1.00	2.10	1400	40
76	10.4	1.00	2.10	1100	55	91.5	16.9	20	0.90	1.80	1000	45
80	12.9	1.05	1.85	1550	45	92.6	16.5	45	1.05	2.20	2200	30
Soda Pulps:												
63	11.1	0.80	1.70	600	70	91.0	14.4	16	0.75	1.50	400	45
75	9.8	0.80	1.65	500	65	91.4	14.9	20	0.70	1.70	350	40

Schopper-Riegler 3g. Freeness.
(1) Volumetric oxidation method.
(2) Gravimetric thiobarbituric acid method.
(3) TAPPI cuprammonium method.

TABLE IV.—BOND PAPERS—BLEACHED SWAMP BLACK GUM SULPHATE PULPS

Pulp Number	Refining: Machine Run Number	Refining: Beating kw.-hr. /ton	Refining: Jordaning kw.-hr. /ton	Refining: Total Power kw.-hr. /ton	Flow Box: Consistency	Flow Box: pH	Flow Box: cc. S.R.	Paper Tests: Basis Wt. 25x40–500	Caliper	Points Mullen	Grams Tear	Double Folds	Opacity (1)	Porosity (2)	Per cent Ash
58	441	265	60	325	0.43	6.8	230	56	41	37	77	450	.91	72	4.2
59	442	265	70	335	0.44	5.7	230	54	41	37	80	580	.90	85	3.5
62	455	210	55	265	0.26	4.7	280	52	41	35	64	350	.85	56	3.5
64	465	255	65	320	0.42	7.1	275	50	40	35	62	780	.84	54	3.1
67	473	185	60	245	0.57	5.1	260	51	42	36	71	760	.87	73	5.1
68	474	195	60	255	0.37	6.9	200	50	43	42	72	1480	.84	46	3.2
69	470	290	65	355	0.43	7.4	150	51	41	38	89	1260	.83	77	2.4
70	472	220	65	285	0.43	7.5	140	54	42	47	96	1650	.82	126	2.4
71	477	150	70	220	0.41	5.3	305	54	43	42	99	840	.85	61	2.6
72	475	160	60	220	0.47	5.5	300	52	42	41	70	1020	.83	40	3.8
..	481	...	155	155	0.37	6.3	170	54	38	45	73	1180	.87	105	3.4
..	484	...	105	105	0.44	5.0	440	58	40	36	82	630	.90	51	5.0
73	478	195	65	260	0.47	5.9	350	52	41	36	83	730	.87	26	3.4
..	483	...	155	155	0.38	5.1	340	51	40	40	82	1030	.87	34	4.2
74	479	185	65	250	0.44	5.4	235	45	39	31	77	640	.86	28	4.2
76	482	210	65	275	0.45	6.2	280	52	38	41	77	820	.87	65	3.6
80	496	...	160	160	0.35	5.3	300	49	39	38	80	1110	.84	117	4.0
Soda Pulp Papers:															
63	462	195	65	260	0.46	5.4	220	46	38	28	58	290	.83	64	2.7
75	485	195	65	260	0.48	5.9	330	56	42	35	92	560	.91	48	4.3

(1) Bausch and Lomb contrast ratio.
(2) Seconds/100 cc. air Gurley densometer.

mullen strengths as 35-45 pts. (20 substance sheet) were secured, while tear values were maintained at 65-95 grams (16-ply). The correlation of tearing resistance of the paper and the cuprammonium viscosity of the pulp is shown graphically in Fig. 1. Values are plotted for both machine-made paper and beater-test handsheets.

Summary

(1) Swamp black gum sulphate pulps suitable for bond papers were made with 16 per cent active alkali in cooking times of 2 to 3½ hours. Yields were 48-50 per cent. Bleaching consumed 3 to 6 per cent chlorine in three or four stages.

(2) Bleached swamp black gum sulphate pulps were made into bond papers of excellent formation and high strength characteristics. 20 substance sheets (54-lb. 25 x 40-500) (46-lb. 24 x 36-500) tested approximately 35-45 pts. mullen, 65-95 grams tear and 400-1500 double folds.

Acknowledgment

The authors are indebted to the staff members responsible for the execution of the experimental work. The research was initiated under the direction of Charles H. Herty, late director of the Laboratory.

TAPPI Notes

The fifth annual joint meeting of the Kalamazoo Valley Section of the Technical Association of the Pulp and Paper Industry and the Michigan Division of the Superintendents Association, will meet at the Columbia Hotel, Kalamazoo, Mich. on Thursday, January 18, 1940. The speaker will be Congressman Samuel Pettingill of So. Bend, Ind. F. L. Zellers will preside as toastmaster at the banquet.

The next meeting of the Pacific Section of TAPPI will be held at Everett, Wash. on February 6, 1940.

The TAPPI Delaware Valley Section will meet at the Engineers' Club, Philadelphia, on Friday, February 9, 1940. J. R. Atwater of Dill & Collins will talk on Costs and Cost Reductions.

Members expecting to attend the annual meeting of the Technical Association at the Roosevelt Hotel, New York, N. Y. on February 19-22, 1940 are urged to bring their 1940 membership cards to assist in facilitating the registration procedure. Registration will begin on Sunday, February 18 on the ballroom floor of the Roosevelt. A record attendance is expected.

Pacific TAPPI Meets at Tacoma

The Pacific Section of the Technical Association of the Pulp and Paper Industry met at Tacoma, Wash. on January 9, 1940. About ninety attended. N. W. Coster of the Soundview Pulp Company presided as chairman.

Professor E. V. White of the Dept. of Wood Utilization, University of Idaho read a paper on the Chemistry of Plant Products and Joe. Baxter, Jr. of the Shartle Brothers Machine Company, Middletown, Ohio, discussed Advanced Stock Preparation —Cyclifining.

Those present were as follows: Jerry Alcorn, Niles M. Anderson, John Ashby, A. J. Bailey, Walter R. Bauman, Chauncy Baxter, Joe Baxter, Jr., C. H. Belvin, W. L. Beuschlein, H. K. Berger, A. L. Bibbins, F. W.W Brainerd, James Brinkley, A. M. Cadigan, George H. Cady, W. J. Clough, Dick H. Cook, N. W. Coster, J. V. B. Cox, E. F. Drake, A. N. Drips, George E. Durkee, Harold R. Erickson, James Fraser, Irving R. Gard, B. R. Gardner, N. O. Galteland, A. S. Gerry, William R. Gibson, Harold Griep, Kenneth B. Hall, S. H. Harrison, L. R. Hartman, A. D. Hawley, Albert H. Hooker, Jr., C. W. Jay, B. L. Kerns, E. E. Kertz, R. L. Kettenring, Frank G. Keuss, John D. Kjome, Robert M. Kuhn, Nels G. Lindh, Henry W. Loren, Robert W. Martig, A. C. McCorry, A. M. Mears, George E. Millard, Robert W. Miller, Kyle Milligan, T. E. Moffitt, Fred Nicholson, F. A. Olmsted, Adolf Orup, Frederic M. Pape, J. W. Peckham, Paul Pittenger, Carl A. Ramstad, Archie P. Ratliff, Jr., Gordon D. Raught, E. D. Rich, H. A. Rehnberg, S. E. Ringheim, L. B. Robinson, Oliver E. Ronken, H. Radford Russell, Walter A. Salmonson, B. W. Sawyer, Ferninand Schmitz, George E. Schmidt, Harlan Scott, F. C. Shaneman, Brian Shera, P. S. Simcoe, Lawrence K. Smith, P. R. Smith, J. D. Sullivan, P. E. Sullivan, H. V. Tartar, Earl G. Thompson, H. A. Vernet, R. O. Vognild, E. A. Vohs, William T. Webster, E. V. White, J. M. Wilcox, Stephen N. Wyckoff.

Scott Paper Co. Moves Boston Office

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 15, 1940—The Scott Paper Company has removed the local headquarters to a larger and well appointed office in the Park Square Building.

TAPPI Annual Meeting Tentative Program

Roosevelt Hotel, New York, N. Y., February 19-22, 1940

Program of Monday, February 19, 1940

9:30 A. M. GENERAL SESSION
F. C. Clark, Chairman

Secretary's Report by R. G. Macdonald
President's Address by F. C. Clark
Reports by Special Committees
Business Session

PAPERS:

1. *Relationship Between Employees and Management in the Paper Industry* by R. A. Hayward.
2. *The Trend of the Newsprint Industry in the United States* by G. D. Bearce.
3. *The Patent Situation* by C. W. Rivise.

2:00 P. M. WATER SESSION
L. B. Miller, Chairman

1. *Function of pH in Water Treatment,* by C. E. Imhoff.
2. *The Rayonier Fernandina Water Treatment Plant,* by E. Nordell and C. Richheimer.
3. *Some Aspects of White Water Flocculation,* by E. N. Poor.
4. *White Water Flow Measurements,* by R. R. Fuller.
5. *Effect of Hardness on Alum Precipitation,* by L. B. Miller.
6. *Survey of Paper Mill Water Requirements,* by the TAPPI Water Committee.

2:00 P. M. ACID PULPING AND HEAT AND POWER SESSION
H. A. DuBois and Pell Foster, Chairmen

1. *A Time-Temperature Control for Sulphite Digesters* by J. F. Inderdohnen.
2. *The Coloring Matter of Sulphite Liquor,* by L. E. Simerl.
3. *The Wallin and Svennson Circulating System* by Sven Fahlgren.
4. *Effect of Acid Concentration on the Temperature Schedule* by G. H. Chidester and J. N. McGovern.
5. *The Economical Disposal of Waste Sulphite Liquor* by G. H. Tomlinson and L. S. Wilcoxson.
6. *Recovery of Heat in Sulphite Mills* by W. H. Kraske.
7. *Evaluation of Pulp Wood* by J. V. Martin (By title).

2:00 P. M.—PAPER TESTING SESSION
B. W. Scribner, Chairman

1. *The Photoelectric Determination of the Permeability of Paper to Fluids,* by H. L. Vincent.
2. *The Terephthalic Method for the Determination of the Total Acidity of Paper,* by B. L. Browning and G. C. Kimble.
3. *TAPPI Subcommittee Developments in Paper Testing.*
   a. *Hydrogen Ion Concentration and Pentosans,* by P. F. Wehmer.
   b. *Water Vapor Permeability* by G. J. Brabender.

Program of Tuesday, February 20, 1940

9:30 A. M. COATING SESSION
F. W. Egan, Chairman

1. *Laboratory Evaluation of Paper Coating Raw Materials* by C. G. Landes.
2. *Effects of the Wetability of Paper Coating Raw Stock,* by Glenn Davidson.
3. *Standard Casein,* by W. E. Stringer.
4. *Evaluation of Coatings Made With Various Pigments,* by A. J. Luth.
5. *An Evaluation of Calcium Carbonate Coating Colors Formulated With Various Adhesives,* by H. F. Roderick and A. E. Hughes.

9:30 A. M. ALKALINE PULPING SESSION
Paul Hodges, Chairman

1. *Sulphate Pulping of Douglas Fir* by M. W. Bray, S. L. Schwartz and J. S. Martin.
2. *Circulation and Storage of Kraft Pulp,* by G. A. Petroe.
3. *The Theoretical Basis for the Action of Sulphide in the Kraft Pulping Process,* by F. S. Hanson III.
4. *The Application of Synthetic Salt Cake,* by W. L. Savell.
5. *Recovery Unit Performance in Burning Kraft Process Black Liquor,* by L. S. Wilcoxson and F. G. Ely.
6. *Bleached Sulphate Cylinder Papers,* by A. B. Moore, Jr.

9:30 A. M. NON-FIBROUS MATERIALS, PREPARATION AND TESTING SESSION
W. A. Kirkpatrick and C M. Connor, Chairmen

1. *Analysis of Size,* by R. W. Kumler.
2. *Analysis of Size,* by E. A. Georgi.
3. *Water Relationship in Clays,* by B. W. Rowland and J. C. Bletzinger.
4. *The Effect of Clay Characteristics on the Calendering of Sheets,* by B. W. Rowland and H. J. Allison, Jr.
5. *The Colloidal Nature of Clays With Reference to Papermaking,* by B. W. Roland.
6. *Retention of Fillers,* by S. W. Martin and W. R. Willets.
7. *Statistical Survey of Rosin Size in the Paper Industry,* by P. K. Baird and C. E. Curran (By title).

2:00 P. M. ALKALINE PULPING AND PULP PURIFICATION SESSION
Paul Hodges and Charles Carpenter, Chairmen

1. *The Oxford and McGregor Deinking Processes,* by F. B. Oldham.
2. *Tall Oil,* by H. L. Blengsli.
3. *Kraft From Bagasse,* by E. R. Whittemore.

4. *Design of Gas Absorption Equipment I. For the Production of Chlorine Water,* by R. P. Whitney and J. E. Vivian.
5. *Comparison of the Cooking Stain Method and Chemical Methods for Determining the Bleachability of Pulp,* by J. Graff and J. F. Hechtman.
6. *Review of Bleaching Literature,* by D. T. Jackson and J. L. Parsons (By title).

2:00 P. M. MICROBIOLOGY SESSION
Allen Abrams, Chairman

1. *Microbiological Control in Paper and Pulp Manufacture,* by R. B. Martin and A. E. Griffin.
2. *Microbiology of Pulp and White Water,* by H. K. Nason, R. S. Shumard and J. D. Fleming.
3. *Significance of Bacterial Control,* by C. M. Baker.
4. *Promoting Satisfactory Bacteriological Conditions in the Paper Mill,* by R. F. Huntley and R. H. Torrey.
5. *Routine Determination of Bacterial Content of Paper,* by L. C. Cartwright and S. S. Epstein.
6. *Spore Germination of Bacteria Commonly Found in Paper and Paper Products,* by R. S. Breed (Motion Picture).
7. *The Relation of Starch to Microbiological Problems in the Paper Mill and Methods of Controlling Bacterial Growth,* by A. Frieden (By title).

Meeting of Wednesday, February 21, 1940

9:30 A. M. COATING GRAPHIC ARTS AND OPTICAL PROPERTIES SESSION
J. F. Halladay, F. W. Egan and J. L. Parsons, Chairmen

1. *The Velo Cold Set Process in Printing and Its Relationship to Paper,* by F. G. Breyer.
2. *The Hygroexpansivity of Paper,* by H. W. Bialkowsky.
3. *Improvements in the Printing Properties of Newsprint,* by C. A. Sankey and D. G. O. Jones.
4. *Product Planning in the Glazed and Fancy Paper Industry,* by G. B. Tallman.
5. *The Psychophysics of Color,* by E. R. Laughlin and I. H. Godlove.
6. *Methods of Designating Colors,* by D. B. Judd.

9:30 A. M. MATERIALS OF CONSTRUCTION SESSION
J. A. Lee and W. G. MacNaughton, Chairmen

1. *Manufacture and Use of Fourdrinier Wire,* by D. C. Dilley.
2. *Welding of Stainless Steel,* by E. W. P. Smith.
3. *Paper Mill Construction,* by H. K. Ferguson and G. W. Dodge.
4. *Survey of Kraft Mill Construction Materials,* by J. A. Lee.
5. Discussion of Packing Material.

2:00 P. M. CONTAINER SESSION
J. D. Malcolmson and A. W. Nickerson, Chairmen

1. *Bending Tests of Corrugated Boards,* by T. A. Carlson.
2. *The A. S. T. M. Container Testing Program,* by Don L. Quinn.
3. Adhesives Symposium.
   a. *How the Properties of Adhesives are Controlled by the Properties of Paper Surfaces,* by F. Camps-Campins.
   b. *Starch Adhesives in the Manufacture of Corrugated Boards,* by D. M. Hawley.
   c. *Influence of Paperboards and Adhesives on the Strength Properties of Corrugated Fiberboards,* by D. W. McCready.
   d. *Performance of Sodium Silicate Adhesives in the Manufacture of Corrugated Fiberboard,* by F. R. Boller, J. E. Lauder and R. Morehouse.

2:00 P. M. HEAT AND POWER SESSION
A. E. Montgomery, Grover Keeth and L. G. Green, Chairmen

1. *Radiant Heat Drying of Paper,* by R. W. K. Ulm.
2. *Drying Rates for Pulp,* by L. G. Green.
3. *Steam Plant Design,* by L. S. Wilcoxson.
4. *The Dowtherm System,* by Pell Foster.
5. *Centralized Lubrication,* by G. K. Kauffield.

2:00 P. M. OPTICAL PROPERTIES SESSION
J. L. Parsons, Chairman

Joint meeting with the Inter-Society Color Council.

1. Survey of Instruments.
   a. *Spectrophotometers,* by K. S. Gibson.
   b. *Abridged Spectrophotometers,* by J. A. Van den Akker.
   c. Instruments Used in the Pulp and Paper Industry.
2. Use of Instruments
   a. *Pulp,* by R. S. Hatch.
   b. *Beater Furnish,* by G. S. Greisheimer.
   c. *Uncoated Paper,* by M. N. Davis.
   d. *Coated Paper,* by W. J. Foote.

Note: At 8:00 p. m. there will be a popular session of the I.-S.C.C. held at the Electric and Gas Association of New York Auditorium, 480 Lexington Ave., New York, N. Y.

Meeting of Thursday, February 22, 1940

9:30 A. M. FORMING AND FINISHING SESSION
A. E. Bachmann and G. Lamont Bidwell, Jr., Chairmen

1. *The Stream Flow Vat System,* by P. H. Goldsmith.
2. *The Dieckbrader Vacuum Deckle for Cylinder Machines,* by A. Yraola.
3. *Effect of Alum on Sheet Properties,* by A. Kelly, F. A. Simmonds and P. K. Baird.
4. *The Relation of the Strength Properties of Multi-Ply Paper Board to the Bonding Between Plies,* by D. S. Brown.
5. *The Relations Between Sheet Strength and Fiber Surface Conditions,* by H. P. Dixon, Jr.
6. *Consistency Regulators,* by Frederick Wierk.

9:30 A. M. COATING AND NEW PRODUCTS SESSION
C. E. Curran, Chairman

1. *Prosize,* by B. W. Rowland and W. M. Bain.
2. *Manufacture and Use of Methocell,* by F. C. Peterson.
3. *Developments in Synthetic Resins and Resin Emulsions,* by F. J. Myers.
4. *Plastics and Chemicals from Wood,* by R. M. Boehm.
5. *The Flocculation and Dispersion of Papermaking Fibers,* by A. Erspamer.
6. *The Decrease of Felt Life Due to Bacterial Action,* by J. P. Weidner.

9:30 A. M. INTER-SOCIETY COLOR COUNCIL

Discussion of Color Problems
Business Session (at 2:30 p. m.)

1:30 P. M. ANNUAL LUNCHEON
F. C. Clark, Chairman

1. Speaker to be announced.
2. *TAPPI Medal Presentation,* by Ernst Mahler to Otto Kress.
3. *Twenty-Fifth Aniversary Observance,* by Harry Fletcher.
4. Remarks, by D. C. Everest.

Meeting Notes

Members expecting to attend the annual meeting are urged to bring their membership dues cards with them to help to expedite the registration procedure.

Rates at other hotels in the neighborhood of the Roosevelt are the following: The Tudor, Commodore, Belmont-Plaza, Shelton and Winthrop begin at three dollars, at the Waldorf, Barclay, Ritz-Carlton and Biltmore they begin at six dollars and at the Roosevelt and Lexington at four-fifty.

Ballot and Constitution

A mailing was recently sent to all voting members containing a ballot for the election of officers and executive committee men for 1940-41. Members are urged to return their ballots as soon as possible.

A copy of the proposed Constitution and By-Laws to succeed the present Articles of Organization of the Association was also enclosed. Voting members are invited to send suggestions and criticisms to the Secretary. These proposals will be voted on at the annual meeting and later by mail ballot.

New TAPPI Members

The executive committee of the Technical Association of the Pulp and Paper Industry has elected the following to membership:

Bror E. Anderson Creosoting Company, fellow in the Department of Forestry, University of Minnesota, Farm Campus, St. Paul, Minn., is a graduate of Gustavus Adolphus College in 1935, was formerly a chemist for the Northwest Paper Company, Cloquet, Minn.

Richard S. Duell, chemist, Union Bag and Paper Company, Chicago, Ill. is a 1936 graduate of the New York State College of Forestry, Syracuse, N. Y. and was formerly with the International Paper Company, Glenn Falls, N. Y.

Robert T. Emerson, Chemical Engineer, Louis Dejonge & Co., Staten Island, N. Y. attended the Massachusetts Institute of Technology and was formerly with the Dennison Manufacturing Company, Framingham, Mass.

Henry D. Erickson, assistant professor of Forest Utilization, Division of Forestry, West Virginia University received his Ph.D. from the University of Minnesota in 1937 and was formerly American Creosoting Company fellow at that institution.

Samuel Cavenda, student, New York State College of Forestry, Syracuse, N. Y. and worked summers for the Racquette River Paper Company and the Rising Paper Company.

Floyd W. Nienow, assistant service engineer, Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. is a 1934 graduate of the University of Wisconsin and was formerly employed by the Ward Paper Company, Merrill, Wis. as a bleach plant operator.

William G. Reynolds, chemical engineer, Gulf States Paper Company, Tuscaloosa, Ala., is a 1939 graduate of the University of Alabama.

Rudolph Schepp, chief chemist, Aschaffenburger Zellstoffwerk A/G., Berlin, Germany received his doctorate from the University of Frieburg Br. in 1923.

James T. Sheehy, assistant chief chemist, Rayonier, Inc., Hoquiam, Wash. is a 1932 graduate in chemical engineering from the University of Washington.

George H. Sullivan, chemist, American Writing Paper Company, Holyoke, Mass. is a 1939 graduate of the New York State College of Forestry, Syracuse, N. Y. and worked summers for the National Cellulose Company, Baldwinsville, N. Y. and the Brownville Board Company, Brownville, N. Y.

Ohio TAPPI Elects Officers

The Ohio Section of the Technical Association of the Pulp and Paper Industry met at the Manchester Hotel, Middletown, Ohio, on Thursday, January 11, 1940. About forty attended. K. P. Geohegan, of the Aetna Paper Company, presided as Chairman.

The principal speaker was J. A. Nicklis, of Wallace and Tiernan Company, Newark, N. J., who talked on Chlorination Practice in Paper Mills.

The following officers were elected for the coming year: Chairman—John E. Burdsall, Crystal Tissue Company, Middletown, Ohio; First Vice Chairman—H. W. Layman, Mead Corporation, Chillicothe, Ohio; Second Vice Chairman—Val. Friedrich, Jr., Beckett Paper Company, Hamilton, Ohio; Secretary-Treasurer—T. M. Chemerys, Champion Paper and Fibre Company, Hamilton, Ohio; Executive Committee—George H. Harvey, Gardner-Richardson Company, Middletown, H. H. Harrison, Crystal Tissue Company, Middletown, O. P. Gephart, Miamisburg Paper Company, Miamisburg, H. H. Latimer, Champion Paper and Fibre Company, Hamilton, K. P. Geohegan, Aetna Paper Company, Dayton, and R. B. Roe, Sorg Paper Company, Middletown.

Among those present were the following: M. L. Barker, Harold C. Leighton, Val. Friedrich, Jr., Andrew H. Frazer, Donald L. Chapin, Thos. L. Ziliox, Mulford C. Baker, T. M. Chemerys, Robert R. Weber, H. Waffenschmidt, Leo Fleischer, E. S. Grant, E. H. Bindley, Myron Wittmer, Edward Lum, Lloyd Bovier, O. P. Gephart, Philip S. Cade, R. B. Roe, George H. Harvey, H. H. Harrison, J. A. Nicklis, M. I. Keirn, K. P. Geohegan, Homer H. Latimer, John E. Burdsall, H. F. Bennett, Alfred S. Clegg, J. H. Tate, H. L. Vanderberg, H. P. Quinn, C. H. Butterfield, J. H. Allison, G. H. Suhs, J. O. Bragg, William Beckett, William A. White, Jr., and J. A. Hamm, Jr.

Floyd H. Blackman Ill

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 15, 1940—Floyd H. Blackman, president of D. F. Munroe Company, is at the Palmer Memorial Hospital, Brookline, Mass., for about six weeks, following an operation. He was at his office January 6, apparently in good health, but on his return to his home, he was taken suddenly ill.

Index, Technical Section, Paper Trade Journal, Volume 109, July to December, 1939

Prepared by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The page numbers in the following index refer to the continuous paging of the *Technical Section* and have no relation to the pagination of the individual numbers of the PAPER TRADE JOURNAL.

References to abstracts of periodical articles published in the *Technical Section* are preceded by a letter "A"; those to patents are indicated by the letter "P". Other entries refer to original articles published in this *Section;* the author entries for such articles are printed in capitals. No author entries are given for the abstracts or patents.

In order to facilitate reference to the individual numbers of the PAPER TRADE JOURNAL, the following table of pages of each issue of the *Technical Section* appearing in each of the 26 numbers of Volume 109 of the PAPER TRADE JOURNAL (July to December, 1939) is given:

No. 1	July 6	1- 12		No. 14	Oct. 5	177-190
No. 2	July 13	13- 24		No. 15	Oct. 12	191-204
No. 3	July 20	25- 26		No. 16	Oct. 19	205-218
No. 4	July 27	27- 36		No. 17	Oct. 26	219-232
No. 5	Aug. 3	37- 48		No. 18	Nov. 2	233-246
No. 6	Aug. 10	49- 62		No. 19	Nov. 9	247-260
No. 7	Aug. 17	63- 76		No. 20	Nov. 16	261-274
No. 8	Aug. 24	77- 90		No. 21	Nov. 23	275-288
No. 9	Aug. 31	91-104		No. 22	Nov. 30	289-302
No. 10	Sept. 7	105-118		No. 23	Dec. 7	303-316
No. 11	Sept. 14	119-148		No. 24	Dec. 14	317-330
No. 12	Sept. 21	149-162		No. 25	Dec. 21	331-344
No. 13	Sept. 28	163-176		No. 26	Dec. 28	345-358

A

Abies amabilis, sulphate pulping... 233
Abietic acid from tall oil..... P278
Abietyl alcohol..... P330
Acetic acid in deinking..... P275
Acetovanillone from sulphite waste liquor A29
Acid amides for waterproofing..... P178
Acrylic resins in leatherboard..... P247
ADAMS, J. REX. Aging test for envelope adhesives..... 97
Adhesives
  Application P104
  Binders board..... A15
  Corrugating 23
  Envelope
    Aging test 97
    Discoloration 97
  Isobutylene polymers..... P330
  Pressure sensitive..... P330
  Rubber, etc..... P330
  Sodium silicate, bonds in boards A15
  Sulphite waste liquors..... P62
  Thermoplastic P330
  Window containers..... A14
Air-brush coater A103
Air conditioning
  Carton plant A15
  Set-up box plants..... A15
Air doctor for coating machine..... P341
Akamatsu, composition..... A13
Albumin in cigarette papers..... P357
Allen-Moore cell..... 142
Alkaline process P147, P277, P301
  Direct steam for..... P277
  Sulphur, use of..... P278
Alkaline pulp, Sudakov..... A29
Alsifilm 79
Alum, preparation for sizing..... P316
Aluminum, separation from paper.. P275
Aluminum chloride
  Beating, effect on A75
  Solvent for cellulose..... A27
Aluminum resinate, sizing with..... P316
Aluminum soap in artificial leather.. P358
Aluminum thiocyanate as solvent for cellulose A27
American Paper and Pulp Association, Instrumentation Program.... 10
Ammonia, pulping with..... P302
Ammonium resinate, sizing with.... P329
Ammonium soaps in flexible coverings P222
Ammonium sulphate, fireproofing with P241
Ampelodesma tenax as papermaking material A25
Aniline, reaction with lignosulphonic acid A62
Annual plants
  Boards from..... P192
  Extractives removal by pressing P277
  Papermaking material..... P62
  Pulping P302
Arundo donax
  Pulping P302
  Steam treatment..... P302
Asbestos
  Gaskets, use for..... P358
  —Lignin, molding..... P217
  —Rubber, coagulation of..... P191
Aspen, cellulose from..... 300
Asphodelus ramosus, papermaking material A25
Asphodill, papermaking material.. A25
Asplund defibrator P302
Auracaria brasiliensis, papermaking material A25

B

Babcock-Wilcox-Tomlinson recovery furnace, chemical losses from.... 4
Bagasse
  Chlorine process P30
  Monosulphite process A25
  Nitric acid process..... A13
BAILEY, A. J. Literature of wood and wood technology..... 289
BAIRD, P. K. *See* Seborg, C. O.
BALDWIN, PAUL C., and VAN DEN AKKER, J. A. Study of friction between solid surfaces and moving paper stock suspension.... 151
Balsam fir
  Celluloses from..... 300
  Fiber dimensions..... 262
Bamboo
  Alkaline process P147
  Chlorine process P30
  Stacom process P277
Banana stalks, Stacom process..... P277
Barium hydroxide, pulping with.... P302
Barker, log..... P247
Barking, effect of warm water.... A48
BAUER, J. V. Adhesives for corrugating 23
Beater
  Banning A75
  Continuous P76
  Efficiency, study of..... A75
  Evaluation of..... A75
  Foyt A75
  Hydrafiner as A75
  Hydraulic P75
  Knives for A75
  Mallikh A75
  Seaborne P75
  Thorsen-Héry A75
Beater room, control..... A75
Beating
  Aluminum chloride, effect of.. A75
  Hydrochloric acid, effect of.... A75
  Hydrogen ion concentration, effect of A75
  Potassium chloride, effect of.. A75
  Sodium hydroxide, effect of.... A75
  Water retention of pulp, effect on 352
Beechwood, pulping P62
  See also Red beech
Bekk hardness tester..... A150
Bekk scratch tester..... A150
Bentonite, films from..... 79
Benzopurpurin 4B as stain..... 119
Bewoid sizing process..... A76
Bibliographies 291
BINGHAM, R. T. *See* Willets, W. R.
Bituminous emulsions, use of black liquors with..... P278
Black liquor
  Atomizer for..... P278
  Bituminous emulsion, use in.. P278
  Carbon from P278
  Combustion P301
  Conductometric analysis..... A30
  Evaporation, thermocompressors for A47
  Heat recovery P301
  Lignin from P147
  Organic matter, determination of 111
  Recovery furnace..... P301
  Resin soap, separation of..... P278
  Rosin sizing, effect on..... A76
  S.-S. recovery system..... A47
  Soda process, stack losses..... 4
  Soda recovery P301
  Stream polluation..... 60
  Tomlinson recovery system.... A47
BLANCHARD, STANLEY W. Photronic brightness tester, opacimeter and gloss meter..... 95
Bleach stain 124
Bleach waste liquor, effect on rosin sizing A76
Bleachability stain 121
Bleaching
  Alkaline pulps..... P316
  Batch 332
  Calcium chloride in..... P277
  Calcium chlorite in..... P316
  Casciani method P78
  Chlorinator P102
  Chlorine 145
    pH, relation of..... A16
  Chlorine-hypochlorite P78, 332
  Chlorine dioxide P102
  Chlorites P316
  Continuous 332
  Flash P102
  Hydrogen peroxide..... P102
  Hypochlorite-chlorine P316
  Kamyr system A78
  Kraft pulp 331
    Chlorine-chlorite P316
    Chlorine-hypochlorite P316
  Magnesium hypochlorite P102
  Methylene blue addition in.... P102
  Multistage A16, A78
    Kraft pulp..... 331
  Oxygen in..... P316
  pH, relation of..... A16
  Sodium chlorite..... P316
  Sulphate pulp..... A77
    Chlorine 145
    Chlorine - chlorite - hypochlorite P78
    Chlorine-hypochlorite P316
    Yield A78
  Sulphite pulp, yield..... A78
  Titanium salts in..... P102
Bleaching plant, G. A. Serlachius Akt. A78
Board
  Absorbent P178
  Asphalt-clay-cement P240
  Automobile P223
  Basis weight, effect on brightness 92
  Binders
    Adhesives A15
    Lining A15
    Sudakov pulp for..... A29
  Brightness, factors in..... 91
  Burnishing P217
  Chestnut A14

Chlorides, test for..... A15
Coating P14
Corrugated P163, P344
  Adhesive bonds in..... A15
  Single-faced bonds..... A15
  Sodium silicate adhesive.. A15
Drawing process..... A14
Drying under pressure..... P217
Electrical insulating..... P247
Filler, effect on brightness..... 93
Fireproofing P218, P241
Food containers, sanitary control 7, 133
Food packaging, water in manufacture of 7
Greaseproofing P247
Hard P217
Heat insulation P15
Insulating P15, P223
  Insecticides in..... P277
  Sisal waste for..... P241
Jute A14
Kapok P223
Kraft A14
Leather, synthetic resins in.... P247
Lignocellulose, drying and pressing P217
Lined
  Brightness
  Factors in..... 91
  Fillers, effect of..... 308
  Titanium dioxide, effect of 308
Molding A14
Sanitary problems..... 7
Sound deadening..... P218
Sound insulation..... P15
Straw A14
Strength, relation of lignin.... 164
Sulphates, test for..... A15
Tempering agents P217
Vibration absorbing P218
Waterproofing P247
Window containers..... A14
Board machine
  Duplex single facer..... P217
  Wet end A104
Board testing, bending strength.... P149
Borax, fireproofing with..... P241
Boric acid, fireproofing with..... P241
Bottles, paper A15
Box, corrugated
  Adhesives for..... 23
  Olsen compression test..... 24
Box tape, starch adhesive..... 24
Box testing, compression test..... 24
BRAY, MARK, W., MARTIN, J. STANLEY, and SCHWARTZ, S. L. Sulphidity effect in the sulphate pulping of Douglas fir.... 224
—, —, and —. Sulphate pulping of silver fir 233
—. *See also* Chidester, G. H.
Brazil
  Paper mills A25
  Papermaking in A13
  Papermaking materials.....A13, A25
  Water supply A25
Bread wrapper P178
  Laminated P330
Breast roll, suction type..... P250
Bright stain 119
British gum for gummed tapes..... P358
Broom
  Glycol, pulping with..... P62
  Papermaking material.....A13, P62
Brushless coater A103
Butylene resin for sizing..... P76

C

Calcium carbonate
  Coating with 128
  Starch-coated P330
Calcium hypochlorite
  Chlorine loss on standing..... 306
  pH, effect of 307
  Preparation 305
  Stability 306
    Factors in A78
  Temperature, effect of..... 307
Calcium lactate, use in paper..... P247
Calcium thiocyanate, solvent for cellulose A27
Calendering
  Agates, life of..... A1
  Flint stones for..... A1
Carbon from black liquor..... P278
Cardboard
  Drawing process..... A14
  Molding A14
Carton plant, air conditioning..... A15
Case ink test..... 158
Casein
  Coating, use in..... 128
  Fancy papers, use in..... P358
Castor oil plant, papermaking material A26
CAULFIELD, J. G. L. *See* Jenness, L. C.
Causticizing, Bogalusa system.... A29
Cellophane
  Bread wrapper, use with..... P330
  Waxed paper, laminated with.. P330
Cellulose
  Alpha, viscosity..... 300
  Aluminum chloride as solvent.. A27
  Aluminum thiocyanate as solvent A27
  Calcium thiocyanate as solvent A27
  Cross and Bevan
    Alpha-cellulose from..... 300
    Viscosity 300
  Degradation, estimation of.... A27
  Gelatinization degree..... A28
  Heterogeneity of A27
  Hydrate cellulose, change of.. A27
  Micellar structure..... A27
  Molecular weight, end group method A27
  Review A27
  Sodium thiocyanate as solvent A27
  Soluble P28
  Solvents for..... A27
  Trimethylated from Thiriena pulp A28
  Wood, location in..... 242
  Xanthation P28
    Effect of..... A27
  Zinc chloride as solvent for.... A27
Cellulose acetate
  Coating with..... P103
  Records, preservation of..... A16
Cellulose crystallites, arrangement in ray cells 303
Cellulose esters
  Coating with..... P330
  Mixed, coating with..... P330
Cellulose ethers, coating with P14, P330, P341
Cellulose glycol ether, coating with P14, P177
Cellulose nitrate, coating with....P103, P358
Cellulose wadding
  Fireproof P179
  High creping for..... A3
Cell wall
  Reducing substances, location of 135
  Structure of..... 164, 242
Cellulose xanthate
  Ripening, effect of..... A27
  Viscosity A27
Charcoal in filter paper..... P358
CHIDESTER, G. H., BRAY, M. W., and CURRAN, C. E. Growth factors influencing the value of jack pine for kraft and sulphite pulps 170
CHILSON, WARREN A. Bleaching procedure design for high white high strength kraft pulps.. 331
Chips
  Impregnation P315
  Length, effect of..... A48
  Penetration, effect of air..... A48
  Size, effect of..... A48
Chip packer P247
Chlorinator for bleaching..... P102
Chlorine
  Containers 143
  Electrolytic process..... A30
  Lime, reaction with..... 305
  Manufacture 140
  Properties 141
  Safety measures 146
  Shipment 143
  Uses 144
  Water solution, composition.... 305
Chlorine dioxide, bleaching with... P102
Chlorine process A30, P30, 145, P277
  Bamboo P30
  Cotton plant..... A13
  Grasses P277
  Rice straw A13
  Straw P277
Cigarette paper
  Beeswax for P3
  Stearates in..... P3
  Water repellent..... P3
Clamp paper cutters..... A1
CLARK, G. L. *See* Gross, S. T.
Clay
  Coating with..... 128
  Particle size, effect of..... A103
Cleansing tissues, wetting agents in 65
Coating A103
  Adhesives P104
  Air-brush coater.....A103, 211
  Air doctor P341
  Air jet in..... P330
  Artificial leather..... P341
  Blue print paper..... P163
  Bottles P341
  Brushless coater..... A103
  Calcium carbonate
    —Casein 128
    Machine P3
    Starch coated..... P330
  Casein-clay-etc. P3
  Cellulose acetate..... P3
    Gum arabic-rosin in..... P3
  Cellulose derivatives.....A3, P218
  Cellulose esters..... P103
    Mixed P330
    Porous P330
  Cellulose ethers.....P14, P177, P341
    Porous P330
  Cellulose glycol ether.....P14, P177
  Cellulose nitrate P358
  Centrifugal apparatus..... P3
  Chlorinated paraffins P341
  Clay 128
    —Calcium carbonate-casein 128
    —Cellulose ethers..... P341
    Machine P3
  Particle size, effect of..... A103
Color filter effect..... 215
Compressed air in..... P103
Contact method..... 159
Containers P341
Dicyclohexyl oxalate in..... P358
Distributing rolls for..... P3
Ester gum..... P104
Ethylcellulose 21, P179
Fair system..... 211
Fatty acids..... P341
Flow-on coater..... A103
Fossil resins..... P103
Gelatin A3
Glassine paper.....P104, P341
Glue P104
Glyceryl abietate..... P104
Gum P104
Hollow articles P341
Hydrogenated fish oil..... P341
Latex
  —Catechol P241
  —Gallic acid P241
  —Pyrogallic acid P241
  —Tannin P241
  —Wax P103
Lining material P358
Machine P3, 210
Massey process P3, P103, 211
Metallic soap..... P104
Methylcelluloses P177, P341
Ortho-Krome process..... 213
Paper machine 210
Paracoumarone P104
Paraffin emulsions P104
Para-print 211
Pigment 213
Polished drum coater..... A103
Porous P330
Print-on coater..... A103
Protein P330
Resins 20, 158
  —Ethylcellulose 21
  Synthetic P103, P104
Roll P103
  Cleaning device..... P103
  Methods of..... 159, 211
Rosin P103, P330
Rotogravure method..... 159
Rubber P341
  Chlorinated P104
  Halogenated P358
Rubber hydrochloride P341
Soy Bean protein..... P330
Spray roll P103
Spraying nozzles for..... P104
Starch
  Calcium carbonate..... P330
  Clay, etc..... P3
Stearic acid wax..... P104
Stencil sheet..... P104
Strip material..... P341
Thermoplastic resins..... 20
  Doctor roll for..... P103
Wax P358
  —Pigment P341
  —Resin P148
Wire 211
Wire screen for..... P104
Color matching A150
  Handsheets for..... 336
Concrete, sulphite waste liquor in.. P276
Congo red as stain..... 122
Contact angle, measure of..... 180
Container
  Greaseproof P358
  Window, pasted..... A14
Contrast ratio..... 32
Cooking stain..... 121
Copper resinate in paper pots..... P192
COPPICK, S., and FOWLER, W. FRANK, Jr. Location of potential reducing substances in woody tissues 135
Corn stalks
  Explosive disintegration..... P274
  Pulping P30
  Stacom process P277
  Water, pulping with..... P274
Corrugating material..... A14
COSLER, A. S. Some speculations on fundamentals in refining..... 116
Costs
  Employees, relation of..... 22
  Reduction by employees..... 22
  Sales, relation to..... 23
Cotton, effect of light..... A16
Cotton linters, lignin and..... P217
Cotton plant, papermaking material A13
Cottrell precipitator with soda recovery furnace 4
Cranes A2
Creping apparatus, multistage..... P357
Cresol resins in insulating papers.. P247
Crimping apparatus P358
Crinkling machine P274
CURRAN, C. E. *See* Chidester, G. H.
Cutter
  Automatic clamp..... A1
  Gummed papers P1
Cylinder, doctor mechanism..... P274
Cylinder mold
  Wire for..... P250
  Wire seam..... P250

D

Dandy rolls
Wire for P250
Wire seams P250
Decalcomania paper P357
Defibrator, Asplund P302
Deinking
Flotation method P26
Ink vehicle in P26
Pyrophosphates in P275
Rod mill, use of P26
Soap-acetic acid P275
Sodium hydroxide, use of P275
Waste, stream polution with 60
Delthirna sizing process A76
DENNETT, FIRTH, and LIBBY, C. E. The effect of particle size on the efficiency of a rosin suspension as measured by the retention of rosin and the degree of sizing imparted to paper 193
Dennison paper testing waxes 157
Diethylenediamine in gummed paper P14
Diffusor, emptying process P1
Digester
Alkaline process, circulation in P277
Circulation, Lurgi A61
Circulation pump P1
Screen P1
Sulphate
NAF circulation apparatus A48
Schauffelberger system A48
Sulphite
Battery of P47
Blowing clean 73
Circulation, Lurgi A61
Cone slope, effect of 49
Diameter, effect of 50
Discharge, factors in 49
Fittings, small vs. large 49
Forced circulation 72
Indirect heating 72
Lining A61
NAF circulation apparatus A48
Pressure control 74
Scale formation 72
Schauffelberger system A48
Steam nozzels for 50
Steam supply P276
Dioxane process, red beech A30
Directories, list of 290
Dishcloth, parchment paper P179
Diss, papermaking material A25
Doctor, Lodding P274
Douglas fir
Chemical analysis 224
Pulp yield 228
Sulphate process, effect of sulphidity 224
DRESHFIELD, A. C. *See* Vanden Akker, J. A.
Drier
Automatic regulator P278
Bearings P105
Casing for P105
Chamber P342
Control system P342
Conveyor, rope P342
Drive P278
Gears P105
Moisture control
Armstrong P342
Stamm P342
Rope grooveway P274
Slip, control of P342
Steam control P106
Steam pressure, control P106
Temperature control P342
Tension control P106
Tension roll P106
Vacuum, liquid seal P105
Dry coating 158
Drying
Board P105, P217
Calcium carbonate-filled paper P105
Coated paper A103
Hot air for P103
Electrical high frequency field in P342
Felt, importance of A104
Gummed paper P103
Paraffin paper P341
Pulp P105
Stages in A104
Suction press P106
Temperature, effect of A104
Vacuum A105
Dual press A1, A104
Dyeing A103
pH control A102
Retention, calculation of 333

E

Eastern hemlock, cellulose from 300
Electric bushings, paper P247
Embossing machine P274
Employees
Costs, relation to 22
Production control, relation to 254
Envelope adhesives 97
Enzymes, applications in paper industry A103
ERIKSEN, L. H. *See* Willets, W. R.
Ethanolamine-silver nitrate reagent 135
Ethylcellulose
Coating with 21, P179
Plasticizer with 21
Expansimeter 297

F

Felt
Conditioner, Vickery P249
Drier, asbestos-cotton P105
Drying, importance in A104
Fiber dimensions
Determination 51
Accuracy of 54
Fiber mats, recovery from compressive deformation 84
Fiber stiffness, indirect measure 83
Fillers
Alkaline earth P105
Board brightness, effect on 93
Brightness, effect on lined-board brightness 308
Calcium carbobate P105
Lime mud-wax P105
Lined-board brightness, effect of 308
Retention
Factors in A16
Glue in A2
Mechanism of A105
Particle size, effect of A105
Sveen glue for A2
Fireproofing agents P179, P218, P241
Triphenyl phosphate for P3
Flax
Alkaline process P30
Chlorine process P30
Shives, alkaline pulping P301
Tow, pulping P278
Waste, papermaking material A26
Floor covering P222
Face saturating apparatus P222
Flexible P222
Flow-on coater A103
Fluorescence size test 279
FOOTE, JAMES E. Method for the measurement of the angle of contact formed between a liquid surface and a fiber and the application of this and swelling data to pore diameter measurements 180
FOOTE, WILLIAM J. Fundamental scattering and adsorption coefficients of dyed handsheets 333
Forest slash, papermaking material A26
Fourdrinier wire
Drainage, factors in A104
Fusible strip for P249
Guide control mean P249
Joints, methods for P249
Photoelectric control P249
Shake mechanism P249
Vibrating means P249
Weaving method P249
Welding joints P249
FOWLER, W. FRANK, JR. *See* Coppick, S.
Fruit tree prunings, papermaking material A26
Fruit wrap, oil-impregnated P178
Fuchsin Red as stain 126
Fuel, southern sources 162

G

Gentian Violet as stain 125
Germany
Pulp requirements A16
Raw materials A16
Waste materials, use of A16
Gillet sizing process A76
Globulin, greaseproofing and waterproofing agent P247
Gloss testing ink 158
Glue
Greaseproofing with P247
—Urea in stereotype mats P217
Waterproofing P247
Glycerol
Gummed tape, use in P358
Pulping with P62
Glycol, pulping with P62
Government publications 293
GRAFF, JOHN H. Stains for determining the degree of cooking, the degree of bleaching and the purity of pulp 119
GRAFF, JOHN H., and Miller, R. W. Fiber dimensions 51
Grasses
Alkaline process P147, P277
Chlorine process P30, P277
Nitric acid pulping P315
Papermaking material A13
Stacom process P277
Steam treatment P275
Greaseproofing P358
Globulin for P247
Glue for P247
Hydrogenated fish oil for P341
Green liquor, starch in purification A30
GROSS, S. T., CLARK, G. L., and RITTER, G. J. Arrangement of the cellulose crystallites in ray cells of white oak as determined by x-rays 303
Guaiacol from sulphite waste liquor A61
Gummed tape P358
Mold resisting P179
Remoistening P179
Starch adhesive 24

H

HAGENAUER, J. F. Use of costs in mill operation 22
Handbooks, chemical 289
Handsheets
Dye retention 336
Dyed
Light absorption 333
Optical constants 337
Optical constants
Basis weight, effect of 337
Formation pressure, effect of 338
Hard pine, sulphite pulping 261
HARLOW, W. M. Further studies on the location of lignin, cellulose and other components in woody cell walls 242
HARRISON, WARD D. Commercial operation of the Sveen Pederson save-all 67
HAUSER, E. A. Alsifilm 79
Head box, stock outlet P274
HELLER, H. F. *See* Van den Akker, J. A.
Hemicelluloses, effect of *Stereum sanguinulentum* A61
Hemoglobin in fancy papers P358
Hemp
Chlorine process P30
Papermaking material A13
Shives, alkaline pulping P301
Stacom process P277
Tow, pulping P278
Waste, papermaking material A26
Henequen, Stacom process P277
HIBBERT, HAROLD. *See* Peniston, Quinton P.
History, Brazilian mills A13
HOLMBERG, C. S. *See* Jahn, E. C.; Sedoff, A.
Holocellulose
Aging, behavior on 328
Alpha-cellulose from 300
Composition 327
Hydration behavior 328
Hydrolyzed 300
Papermaking material 328
Preparation 326
Viscosity 300
Yields 299
Hops, papermaking materials A13, A26
HOUTZ, HAROLD H., and KURTH, ERVIN P. The papermaking properties of holocellulose 326
HUGHES, A. E., and RODERICK, H. F. Study of calcium carbonate, clay and casein coating mixtures affecting certain sheet characteristics 128
Humidity
Color stability of pulp, effect of 320
Printing, role in 207
Hungary, paper industry A16
HURLEY, ALBERT B. Ortho-Krome process of coating paper 213
Hydrarefiner A75
Hydrochloric acid
Beating, effect in A75
—Organic solvents, pulping with P147
Pulping with P147
Hydrogen ion concentration
Beating, effect in A75
Dyeing, control in A102
Hydrogen peroxide, bleaching with P102

I

Insole stock P358
INSTITUTE OF PAPER CHEMISTRY. Instrumentation Studies. XXX. Study of instruments for the measurement of opacity of paper. I. A general discussion of opacity and methods for the measurement of opacity 31
——. Instrumentation studies. XXXI. Schopper bending endurance tester 41
Instrumentation, fundamentals of 9
Insulating panel P241
Insulation
Automobile P223
Thermal P223
Isobutylene resins, sizing with P76

J

Jack pine
Analyses 172
Celluloses from 300
Fiber dimensions 262
Physical properties 172
Pulp yields 174
Sulphite pulp, effect of temperature schedules 176
JAHN, EDWIN C., and HOLMBERG, C. V. Relation of lignin content to the strength of paper

and boards. I. Literature survey and progress report..... 164
———. *See also* Levy, John; Sedoff, A.
Japan
Forest resources..... A13
Paper trade..... A16
Timber requirements..... A13
JENNES, L. C., and CAULFIELD, J. G. L. The absorption of sulphur dioxide in water..... 345
Johnsonburg sulphite waste liquor treatment plant..... 60
Jordan
Bars, crimped..... P248
Knives, crimped..... P248
Plug and shell..... P248
Stock feed..... P248
Jute liner..... A14
Surface wear tester..... P149

K

K and N waxes..... 157
KEENE, PAUL A. Manufacture and uses of chlorine..... 140
KIRKPATRICK, WILLIAM A., II. Use of waxes and case testing ink in testing printing papers.... 156
KNECHTGES, R. G. *See* Pew, J. C.
Knotter..... P1
Kraft liner..... A14
Kraft pulp
Fiber dimensions..... 56
Jack pine
Fiber dimensions..... 54
Growth factors, effect of.. 170
Purification, alkaline..... P3
Silver fir..... 233
KRASKE, W. H. Factors influencing the free discharge of stock from sulphite digesters..... 49
KRESS, OTTO. *See* Ragan, R. O.
Kuhn system for waste paper..... A26
KURTH, ERVIN F. *See* Houtz, H. H.

L

Lamort disintegrator..... A26
Larix kaempferi, analyses..... A26
Latex
Artificial leather, use in.....P343, P358
Bread wrapper, use with..... P330
Coating..... P103
Fancy papers, use in..... P358
Gummed tape, use with..... P358
Reinforced paper, use in..... P177
Paper coated with.....P103, P241
—Wax, coating with..... P103
Lauan woods, analyses..... A26
Lead arsenate in building papers.. P222
Leather, artificial.....P343, P358
Latex in.....P343, P358
Rubber coating..... P341
Leatherboard, treatment with phosphoric acids..... P217
LEVY, JOHN, and JAHN, EDWIN C. Effect of mechanical gelatinization on the solubility of wood in cuprammonium solution..... 311
LEWIS, HARRY C., and RICHARDSON, CHARLES A., III. Relation between delignification and strength characteristics of very raw pulps..... 188
LIBBY, C. E. *See* Dennett, Firth; Studeny, John.
Liebermann-Storch test for resin.. 107
Lignin
Alkali fusion..... A28
Beech, alkali fusion..... A28
Black liquor, isolation from.... P147
Chlorinated, solubility in alkali A78
Cyclohexane derivatives from.. P275
Dehydrodiveratric acid from.. A28
Formaldehyde from..... A28
Guaiacyl group in..... A27
Hydrogenation..... P275
Isohemipinic acid from..... A28
Methanol from..... P275
Methanol, x-ray study..... A28
Methylated, x-ray study..... A28
Molded pulp, use with..... P217
Nitrated, x-ray study..... A28
Pentosan determination, relation of..... A28
Phenol resin..... P147
Plastics.....P147, P275
Preparation..... P217
Pulp strength, effect on..... 188
Spruce, alkali fusion..... A28
Structure..... A28
Sulphuric acid, distillation with A28
Syringyl group in..... A27, A28
Veratric acid from..... A28
Wood, location in..... 242
X-ray study..... A28
Lignosulphonic acid
Aniline, reaction with..... A62
Tanning agent from.....P276, P277
X-ray study..... A28
Lime, reaction with chlorine..... 305
Lime mud
Filler, use as..... P105
—Wax, use as filler..... P105
Lime recovery, Bogalusa system.... A29
Linen shives, alkaline pulping..... P301
Liner, effect on board brightness.. 92
Linoleum, flexible..... P222
Literature sources..... 289
Lithopone in carbon paper..... P343
Loblolly pine
Fiber dimensions..... 202
Specific gravity..... 203
Springwood, fiber dimensions.. 203
Springwood content, relation of specific gravity..... 203
Summerwood, fiber dimensions.. 203
Lofton and Merritt stain..... 125
LONG, J. H. Thermoplastic coatings —a new approach to decorative paper..... 20
Lucas equation..... 181
Lurgi circulation system..... A61

M

McCARTHY, E. F. Planted red pine as related to pulpwood yields north and south..... 268
McINTYRE, JAMES W. Application of a quantitative technique to the evaluation of color stability of bleached pulps. Influence of machine drying and natural aging upon this evaluation..... 317
Mäule reaction..... 135
Magnesium hypochlorite, bleaching with..... P102
Magnesium silicofluoride, fireproofing with..... P218
Malachite green as stain..... 122, 126
MARTIN, J. S. *See* Bray, M. W.
Masking tape, adhesive for..... P330
Masonite, rubber hydrochloride with P217
MASSEY, PETER J. Paper machine coating processes..... 210
Mechanical process
Acid-drenched wood for..... P301
Barium salts, use of..... P62
High speed grinding, effect of 201
Impregnation in..... P62
Temperature, effect of..... 272
Wood feed rate, effect of..... 199
Mechanical pulp
Chlorine dioxide, action of.... 168
Chlorine water, effect of..... 168
Consistency, effect of..... 272
Contact area, effect of..... 272
Lignin and, molding..... P217
Loblolly pine..... A29
Longleaf pine..... A29
Pine wood for..... A29
Barium salts, use of P62
Screw press treatment P62
Wood-stone contact are, effect of 271
Methanol, preparation from lignin P275
Methoxy groups, determination 230
Methylcelluloses, coating with ...P177, P341
Methylene Blue, addition in bleaching..... P102
Mica, use in paper..... P241
Midsoles..... P358
Milk bottle
Paper.....A14, A15
Paraffining..... A14
Sanitary aspects..... A14
Milk bottle cap.....P217, P218
MILLER, R. W. *See* Graff, John H.
Molded pulp, use of lignin in P217
Molded pulp articles..... A15
MOON, D. G. Some of the factors influencing the selection of mill sites in the South..... 160
Morpholine, use in gummed paper .. P14
Mortar, sulphite waste liquor in .. P276

N

NAF circulation apparatus..... A48
Naphthenic esters, rotproofing with.. P177
Neenah expansimeter..... 297
Nicotine sulphate in building paper P222
Nitric acid, action on wood..... A26
Nitric acid process.....P302, P315
Bagasse..... A13
Cotton plant..... A13
Rice straw..... A13
Nitrolignin..... A28
NOLAN, PHILIP. *See* Van den Akker, J. A.
Norway pine, sulphite pulping 261

O

Olsen compression test..... 24
O'NEIL, F. W., and RUE, J. D. The lime-chlorine system in the preparation of calcium hypochlorite..... 305
Opacity
Discussion..... 31
Measurement of..... 33
Printing..... 34
TAPPI..... 33
Oxycellulose, iodometric determination..... A27
Oxygen number..... 111

P

Palm leaves, Stacom process..... P277
Panel, sound deadening..... P218
Paper
Abrasive.....P191, P342, P343
Composite..... P179
Electrostatic field in manufacture..... P192
Phenol resin as adhesive.. P191
Absorbent..... P178
Aluminum-coated, recovery ... P275
Artificial leather..... P343
Asphalt-laminated..... P241
Backing..... P177
Bag, Jordan-beaten pulp for A62
Blotting, wetting agents in 65
Blueprint, coating of..... P163
Bond, drying..... A104
Building
Insect-proof..... P222
Reenforced..... P343
Burlap, laminated to..... P177
Cable..... P358
Compression of..... P3
Oil oxidation in..... A3
Capillary rise, height of..... 187
Carbon.....P241, P343
Ultraviolet light absorbing P343
Casein-clay coated, resin coating 21
Cigarette.....P344, 357
Waterproof..... P344
Coated
Brightness, effect of casein 132
Finish, effect of casein 131
Glazing..... P330
Ink receptivity, effect of casein..... 129
Moistureproof..... P104
Opacity, effect of casein .. 131
Pick test, effect of casein, etc..... 129
Smoothness, effect of casein 130
Coffee-filtering..... P358
Color printing, relation to 205
Compressibility, relation to printing..... 258
Conditioning
In printing..... A2
Theory..... A2
Cone, roughened..... P344
Conveying methods..... A2
Cork containing..... P150
Corrugated
Crushed..... P344
Tearing apparatus..... P357
Cream-removal..... P179
Creped..... P357
Laminated trimming strip from..... P191
Waterproof..... A15
Creping..... P357
Longitudinal..... P191
Crimping..... P357
Crinkling..... P274
Cross direction, effect in printing..... A2
Cutting, accuracy in..... A1
Decalcomania.....P179, P357
Decorative.....P247, P357
Design..... P358
Discoloration rate..... A149
Bleaching, effect of..... A149
Humidity, effect of..... A149
Durability factors..... A16
Elastic multiply..... P177
Electrical insulating.....P247, P358
Compound..... P241
Phenol resins in..... P241
Embossing..... A3
Esterified..... P358
Felt side, effect on printing A2
Filler, addition of..... P241
Filter..... P358
Fireproof.....P179, P218
Food wrapping..... P241
Sanitary control..... 133
Fruit wrap..... P178
Glass-filled.....P178, P358
Glassine..... P178
Coated..... P104
Coating..... P341
Laminated.....P163, P178
Resin coating..... 21
Glossy surface..... A3
Greaseproof..... P163, P178, P358
Globulin for..... P247
Glue for..... P247
Laminated..... P163
Metal foil, laminated..... P247
Proteins for..... P247
Greaseproof kraft..... P3
Gummed..... P104
Amines in..... P14
Cutter for..... P1
Glue, preparation of, for .. P178
Greaseproof..... P179
Lacquer-coated..... P179
Hardening.....P148, P163
Heat, effect of..... P150

Hygroscopic quality, effect in printing 205
Imitation parchment P178
Impregnated, permeability of .. A3
Ink, relation to 260
Ink receptivity 260
Insulating, resins for P177
Kraft, greaseproof P3
Lacquering A3
Laminated
Asphalt P241
Chlorinated rubber in P177
Latex-tannin coated P241
Litmus A14
Lithographic, sizing A76
Lubricant P241
Machine direction, effect in printing A2
Manila fibers in P3
Metal foil, laminated P247
Mica in P241
Microbiological control 8, 133
Moisture absorption, effect of filler A2
Moisture content on drier, control of P342
Moistureproof P148
Oil absorption, relation to printing 258
Oil-impregnated, oil oxidation in A3
Opacity, relation to printing .. 259
Parchment
Metal foil, laminated P247
Washcloth P179
Permanency, effect of sulphur dioxide A150
Photographic, sizing P329
Picking, relation to printing .. 259
Pinewood-resin impregnated .. P163
Pore diameter, measure of 186
Porosity, relation to printing.. 259
Printability 260
Printing, clay coated P177
Printing, imprinted marking .. P177
Printing, relation to 257
Reinforced P3, P177
Resin-impregnated P191
Rot proofing P177
Roughened, for cones P344
Safety P163
Sand P343
Sanitary problems 7
Security P163
Sisal fibers in P3
Size resistance, relation of angle of contact 186
Sized
Discoloration rate A149
Neutral P316
Skid packing P278
Smoothness, relation to printing 257
Softness, relation to printing .. 258
Static electricity A16
Storage conditions A15
Strength, effect of lignin 164
Sulphur gases, effect of A150
Surface-felted P218
Thermoplastic coatings 20
Thickness indicator on machine P248
Tissue
Cream removal P179
Machine A241
Towel P14
Vacuum drying, effect of A105
Varnished P341
Vermiculite in P241
Water penetration, factors in .. A3
Waterproofing
Fatty acid amides in P178
Globulin P247
Glue P247
Heating for P150
Protein for P247
Waxed
Bags from P178
Cellophane, laminated with. P330
Laminated P163
Partial removal of wax P178
Wet strength
Glue-formaldehyde for P177
Increase of P358
Wire side, effect in printing .. A2
Wrapping
Rancidity prevention, groundwood pulp for .. P177
Sanitary problems 7
Wrapping of P278
Paper industry
Hungary A16
Sanitary control 134
Wisconsin A16
Paper jobber, functions of A16
Paper merchant, relation of jobber to A16
Paper mill sites, selection 160
Paper propagating pot P192
Paper testing
Abrasives A150
Biological methods A149
Brightness, photronic cell 95
Case ink test 158
Color matching A150
Compressibility A150
Elasticity A150
Expansion 297
Fiber analysis A149
Sample holder P150
Fluffing tendency A150
Folding endurance 41
Gloss
Photoelectric meter P149
Photronic cell 95
Hardness A150
Hygroexpansivity 297
Ink absorption A149
Ink receptivity, Case ink test .. 158
Instruments, methods of evaluation 10
Oil absorptivity 258
Opacity P106
Photronic cell 95
Permanency, gas chamber test.. A150
Pick test A150
Interpretation 157
Waxes for 156
Picking 259
Resin 107
Size resistance
Air movement, effect of .. 285
Basis weight, relation of .. 282
Fluorescence test 279
Photoelectric fluorescence recorder 286
Smoothness 257
Softness 258
Starch 109
Stiffness P149
Surface wear P149
Transparency, photoelectric apparatus A150
Whiteness, photoelectric apparatus A150
Papermaking materials
Ampelodesma tenax A25
Annual plants P62, P192
Arundo donax P62
Asphodelus ramosus A25
Asphodill A25
Bacteria, impregnation with . P315
Bagasse A13, A25, P30
Bamboo P30, P147, P277
Banana stalks P277
Brazil A25
Broom A13, P62
Castor oil plant A26
Cornstalks P30, P277
Cotton plant A13
Diss A25
Fermentation P315
Flax P30
Flax waste A26
Forest slash A26
Fruit tree prunings A26
Grasses A13, P30, P147, P277
Hemp A13, P30, P277
Hemp waste A26
Henequen P277
Hop shoots A13, A26
Italian A25
Palm leaves P277
Papyrus A25
Potato stems A26, P62
Reeds A13, P62
Rhubarb P277
Rice straw A13
Sisal P30
Stinging nettles A26
Straw A13, A26, P30, P62, P147
Sugar cane P277
Tobacco stalks P277
Papyrus, papermaking material A25
Paraffin, cooling P104
Patent law, changes in 192
Patents
Informational sources 292
United States 37, 219
PENISTON, QUINTON P., and HIBBERT, HAROLD. Determination of methoxyl groups in pulp and plant materials..... 230
Pentosans, relation to lignin A28
Perforating machine P274
Petrex resins, coating with 21
PEW, J. C., and KNECHTGES, R. G. Cross-sectional dimensions of fibers in relation to papermaking properties of loblolly pine 202
———. *See also* Schafer, E. R.
Phenol resins
Electrical insulating papers, use in P247
Flexible coverings, use in P222
Insulating papers, use in P241
Paper impregnated with P191
Phosphoric acid, treatment of leatherboard P217
Photoelectric fluorescence recorder 286
Photographic film, backing paper... P179
Picea ajanensis, analysis..... A26
Pine needles
Explosive disintegration P274
Water, pulping with P274
Pinewood, pulping with barium hydroxide P62
Pinus densiflora, composition A13
Pinus resinosa, sulphite pulping 261
Pinus strobus, composition 313
Pinus sylvestris
Pulping with alkali triphosphates P277
Pulping, calcium chloride in .. P277
Resins, removal of P277
Pipes, pulp flow in 152
Pitch
Characteristics of 17
Plasticity, determination of 17
Pulp, isolation from 18
Tackiness, measure of 17
Plastics, lignin P147, P275
Polished-drum coater A103
Polyacrylic esters in fancy papers .. P358
Polysaccharides, molecular weight determination A27
Polystyrene
Cable paper, use in P358
Cigarette paper, use in P344
PORTER, D. C. Operating experiences with forced circulation and indirect heating in sulphite digesters 72
Potassium chloride, effect on beating A75
Potato stems, papermaking material. A26, P62
Power resources in South 161
PRELINGER, HERBERT. New method for the determination of the organic matter in acid and alkaline cooking liquors 111
Press, dual A1, A104
Press roll
Arrangement P250
Chromium plated P250
Surface preparation P250
Pressspahn, calendering A1
Printing
Coated art paper..... A2
Coating, relation of..... A103
Color, misregister in..... 205
Curling of paper, effect of..... A2
Expansion of paper, control of 206
Humidity, effect of..... 207
Humidity control..... 207
Multicolor offset, paper problems 205
Paper, relation of..... 206
Paper conditioning in..... A2, 206
Paper grain, effect of..... A2
Paper packaging for..... A2
Paper quality, relation of..... 257
Register in..... 206
Checking A2
Temperature, effect of..... 207
Printing inks
Acids, effect of..... A2
Alkalies, effect of..... A2
Chemicals in paper, effect of.. A2
Paper, relation of..... 260
Strawboard, effect of..... A2
Printing plant, overcoming troubles in A2
Print-on coater..... A103
Process standards..... 252
Production, planning 255
Production control
Budgeting for..... 255
Demand, relation of..... 255
Personnel, relation of..... 254
Raw materials, relation of..... 251
Sales forecast in..... 256
Standards in..... 251
Productivity, standard of..... 253
Protein
Coating with..... P330
Greaseproofing with..... P247
Synthesis A61
Waterproofing with..... P247
PULLMAN, J. C. Dry coating of paper 158
Pulp
Acetylation, preparation for.... P148
Acidity, effect of drainage..... A104
Alkaline, bleaching P316
Angle of contact with liquids.. 185
Area feeding device..... P248
Beaten, water retention..... 350
Bleached, color stability..... 317
Humidity, effect of..... 320
Machine drying, effect of.. 321
Temperature, effect of.... 320
Wet storage, effect of.... 324
Bursting strength
Recovery from compressive deformation, relation of.. 88
Water retention, relation of 355
Centrifugal purifier..... P274
Coefficient of friction at metal face 152
Color stability..... 317
Dry storage, effect of..... 324
Hot water extraction, effect of 323
Humidity, effect of..... 317
Temperature, effect of.... 317
Consistency
Friction in pipes, effect on 154
Regulator P248, P278
Control tests 251
Conveying methods..... A2
Deckering, partial P148
Distributor, regulatable..... P248
Drainage on wire, effect of acidity A104
Elastic contraction..... 354
Explosives, use for..... P301
Flow control device..... P148
Flow-on machine, regulation... P248
Freeness
Friction in pipes, effect on 156
Recovery from compressive deformation, relation to 87
Friction in pipes, factors in... 152
Gelatinized, water retention... 350
Gelatinization degree..... A28

Hardwood A25
Humidifying P148
Hydrogen peroxide treatment.. P148
Linear shrinkage..... 353
Machine drying, effect on color 317
Microbiological control..... 8, 133
Milk bottles, use for..... A14
Mitscherlich, color stability.... 317
Moisture content under pressure A28
Oven aging experiments..... 317
Papermaking qualities and chemical composition..... 166
Pipes, flow in..... 152
Pitch, isolation of..... 18
Purification P148
Raw
  Strength characteristics.... 188
  Swelling behavior..... 190
Rayon P301, P302
  Annual pulps P62
  Hardwoods A25
Recovery from compressive deformation 84
  Bleaching, effect of..... 90
  Cooking conditions, effect of 90
  Pressure, effect of..... 86
  Springwood, effect of..... 90
  Summerwood, effect of.... 90
  Temperature, effect of.... 85
Shrinkage, relation to recovery from compressive deformation 88
Slowness, relation to water retention 355
Soda, color stability..... 317
Solid fraction, relation to recovery from compressive deformation 88
Stability, effect of temperature A16
Stockmaker P148
Strength, relation to lignin content 188
Sulphite, color stability..... 320
Tearing strength, relation to recovery from compressive deformation 88
Tensile strength, relation to recovery from compressive deformation 88
Viscosity
  Aging, effect of..... A16
  Reduction of..... P148
Water retention
  Beating, effect of..... 352
  Gelatinization, effect of.... 352
  Linear shrinkage, relation of 353
  Pressure, effect of..... 353
  Slowness, relation of..... 355
Wetting agents, use of, in.... P148
Pulp grinder, effect of number of pockets 271
Pulp industry
Germany A16
Sanitary control in..... 134
United States A16
Pulp mills, points of bacterial development 8
Pulp molding apparatus..... P218
Pulp purity factor..... 124
Pulp screen, rotary..... P247
Pulp testing
  Bleaching degree, stains for.... 119
  Cooking degree
    Permanganate number A106
    Stains for..... 119
  Drying oven for strained samples 122
  Instruments, method of evaluation 10
  Methoxyl group..... 230
  Moisture A26
  Permanganate number..... A106
  Purity, stain for..... 119
Pulpboard, machine for..... P192
Pulping
  Barium hydroxide, use of..... P62
  Chlorine. *See* Chlorine process
  Clycerol P62
  Glycol P62
  Hydrochloric acid..... P147
  Nitric acid. *See* Nitric acid process
  Polyhydroxy alcohols P62
  Pomilio process. *See* Chlorine process
  Stacom process..... P277
  Steam-air P147
    Pretreatment with..... P62
  Sulphur, use of P278
Pulpstone
  Artificial P302
    Reenforced P302
    Outer sectors, fastening.... P302
  Sharpening A29
  Wood contact area, effect of... 271
Pulpwood
  Akamatsu A13
  Aspen A29
  Auracaria brasiliensis A25
  Beechwood A29, P62
  Brazil A25
  Chestnut A14
  Decayed, sulphite pulping..... A61
  Fungi, effect of..... A61
  Gumwood A14
  Hardwoods A25
  Jack Pine, effect of growth factors 170
  Larix kaempferi..... A26
  Lauan woods..... A26
  Loblolly pine A48
  Longleaf pine..... A48
  Moisture, determination of.... A26
  Picea ajanensis A26
  Pinewood P62
  Pinus densiflora A13
  Rakuyosho A26
  Red beechwood A30
  Red pine 261
  Red spruce 300
  Resinous P62
  Shortleaf pine..... A48
  Slash pine A48
  South, supply of..... 160
  Southern pine..... A13
  Stereum sanguinulentum, effect of A61
  Tropical A25
Pyrophillite and lignin, molding..... P217

Q

Quality standards 252

R

Rag digester waste, stream pollution with 60
Rag pulp, bleached, pressing of..... P148
RAGAN, ROBERT O., and KRESS, OTTO. Physical characteristics of sulphite pitch..... 17
Rakuyosho, analysis..... A26
Raspail test for resin..... 107
Ray cells
  Crystallites, arrangement of.... 303
  Diffraction patterns..... 304
  X-ray studies 303
Records
  Cellulose acetate for preservation A15
  Repair and preservation..... A15
  Storage conditions..... A15
Red beech
  Dioxane process..... A30
  Pentosan content..... A30
Red pine
  Chemical analysis..... 263
  Fiber dimensions..... 262
  Growth rate..... 268
  Physical constants..... 262
  Soda base liquor for..... 266
  Sulphite pulping..... 261
  Yield data..... 268
Red spruce, celluloses from..... 300
Reeds
  Papermaking material.....A13, P62
  Steam treatment P302
Refiner
  Centrifugal P274
  Cowles P147
  Haug P76
    Bushings P76
  Knoll, nozzle for..... P75
  Stock feed P248
Resins
  Dry coating with..... 158
  Synthetic
    Coating P103, P104
    Sand paper, use in..... P343
  Thermoplastic, coating with.... 20
Rewinder P274
  Electric regulator..... A2
  Oscillation P250
  Web guiding device P274
Rhubarb, Stacom process for..... P277
RICHARDSON, CHARLES A., II. *See* Lewis, H. F.
RITTER, G. J. *See* Gross, S. T.; Van Beckum, W. G.
ROBERTSON, H. F. *See* Wilkes, B. G.
Rod mill, roofing felt fibers in..... P240
RODERICK, H. F. *See* Hughes, A. E.
Roll
  Cleaning device..... P1
  Doctor mechanism..... P274
  Leather scraper..... P1
  See also Suction roll
Roofing P223
  Asphalt, manufacture..... P240
  Asphalt, molten, for..... P218
  Asphalt-clay-cement P240
  Asphalt-starch P218
  Coal tar pitch in..... P222
  Coating method..... P240
  Coating of varying thickness.... P241
  Coating rolls P218
  Colored P223, P240, P241
  Cork in..... P222
  Corncob pith in P222
  Corrugated surface P218
  Cottonseed hulls in..... P222
  Defibered wood for..... P302
  Design P241
  Mineral wool in..... P222
  Rag felt in..... P222
  Saturating method..... P218
  Shadowless P241
  Surfaced P218
  Surfacing apparatus..... P218
  Surfacing with grits..... P240
Roofing felt
  Rod mill for..... P240
  Vents in..... P223
Roofing strip..... P223
Rope digester waste, stream pollution with..... 60
Rosin
  Coating with..... P330
  Dry size from..... P330
  Hydrogenated P329
  Saponification P330
  —Wax emulsions, sizing with.. A76
    Glue in A76
Rubber
  Asbestos, coagulating on..... P191
  Chlorinated
    Coating with.....P104, P358
    Paper, use with..... P177
  Leather, artificial, use in..... P358
  See also Latex
Rubber hydrochloride, use with Masonite P217
RUE, J. D. *See* O'Neil, F. W.

S

Safety in chlorine handling..... 146
SANBORN, J. R. Advantages of microbiological control in pulp and paper manufacture..... 133
———. Sanitary quality in fabricated paper..... 7
Sapinyl alcohol..... P330
Save-all
  Glue in..... 67
  Sveen glue in..... A2
  Sveen-Pederson 67
  Wallquist P274
SCHAFER, E. R., and PEW, J. C. Effect of the woodstone contact area in the groundwood process.. 271
——— and ———. Effect of rate of feed of wood to stone at various stone surface speeds in the groundwood process..... 199
Schauffelberger circulation system.. A48
Schopper bending endurance tester 41
Screen
  Knight P247
  Rotary P247
  Vibratory P247, P248
SCHWARTZ, S. L. *See* Bray, M. W.
Sealing tape, starch adhesive..... 24
SEBORG, C. O., SIMMONDS, F. A., and BAIRD, P. K. Properties of wet fiber mats: relation of recovery from compressive deformation to sheet properties..... 83
SEDOFF, ARTHUR, HOLMBERG, C. V., and JAHN, EDWIN C. Water retention of beaten and gelatinized pulp..... 350
Set-up box plant, air conditioning.. A15
Sheet formation..... P248
  Electrode plates, use of..... P241
  Pressure in..... P248
  Pulp addition to web..... P248
Sheet properties, effect of fiber stiffness 83
Shingle
  Asphalt P223
  Coating apparatus..... P223
  Composite P218
  Mold for..... P223
  Surfacing P223
Shower pipe, cleaning shaft for.... P1
SIEBERT, CHRISTIAN L. Modern concepts of stream pollution from paper mills..... 57
Sigma testing instrument..... A25
Silver fir
  Chemical analysis..... 233
  Physical properties.....233, 238
  Sulphate pulping..... 233
SIMMONDS, F. A. *See* Seborg, C. O.
SIMMONS, R. H. Paper quality in relation to printing..... 257
Sisal, chlorine process..... P30
Sisal waste, insulating board from P241
Sizing
  Abietic acid..... 196
  Acrylic amide in..... P77
  Air removal previous to..... P329
  Alum, preparation of, for..... P316
  Aluminum resinate-ammonia P316
  Ammonium resinate..... P329
  Butylene resin..... P76
  Dry rosin size..... P77
  High free rosin size..... 198
  Isobutylene resin..... P76
  Methacrylic amide in..... P77
  Montan wax..... A76
  Multiply felt..... P77
  pH 7..... P76
  Photographic paper.....P77, P329
  Resin, synthetic.....P76, P77
  Resin-wax emulsion..... A76
  Rosin
    Acrylic amide in..... P77
    Bewoid A76
    Black liquor, effect of.... A76
    Bleach waste liquor, effect of A76

—Casein P77
Delthirna A76
Dry size P330
Gillet process A76
—Glue P77
H grade in gelatin 197
Rosin
Hydrogenated P329
Particle size, effect of 193
—Soybean casein P77
—Wax P77
Water, effect of A76
Sodium silicate A76
Soybean protein P77
Starch A76
Aluminate and P329
Dispersion of P76
Preparation of P316, P329
Silicate and P329
Vinyl resins P316
Water, effect of A76
Wax
Acrylic amide in P77
—Casein emulsion P148
Slice, Niks P249
Slime
Prevention P278
Temperature, effect of P278
Slitter knife, fastening of P1
Soap, use in deinking P275
Soda recovery
Babcock-Wilcox-Tomlinson furnaces, losses from 4
Chemical recovery, stock losses 4
Cottrell precipitator, effect of .. 4
Furnace P301
S.—S. system A47
Tomlinson system A47
Sodium aluminate-starch, sizing with P329
Sodium hydroxide, effect on beating A75
Sodium metasilicate-starch, sizing with P329
Sodium sesquisilicate-starch, sizing with P329
Sodium silicate, sizing with A76
Sodium thiocyanate as solvent for cellulose A27
Southern pine
Chemical analysis 263
Fiber dimensions 262
Growth characteristics, relation to pulping A13
Heartwood content A13
Pulping, factors in A13
Sapwood content A13
Springwood content A13
Summerwood content A13
Soybean protein
Coating with P330
Sizing, use for P77
Spruce
Chemical analysis 263
Fiber dimensions 262
Stacom process P277
Standards (definition) 251
Starch
Green liquor purification, use in A30
Roofing, use in P218
Sizing A76, P76
Swelling for P329
Sodium aluminate and, sizing with P329
Sodium silicate and, sizing with P329
Sulphochloroamides, action of .. P316
Swelling, control of P329
Static electricity A16
Statistical data, sources of 293
Steam dye bath 121
Stearic acid in cigarette paper P344
Stencil sheet P104
Stereotype mats P217
STEVENSON, LOUIS T. Budgeting demand for the purpose of controlling production 255
Stinging nettle, papermaking A26
Stock outlet P274
Stock tank
Air collector P248
Baffle means P248
Straw
Alkaline process P277, P278
Board from P315
Calcium hydroxide pulping P278
Chlorine process P30, P277
Furfural, preparation of P315
Glycerol, pulping with P62
Glycol, pulping with P62
Nitric acid pulping P302, P315
Papermaking material A26
Pulping P278, P315
Steam treatment P275, P302
Straw pulp
Acid treatment P147
Alkali treatment P147
Stream pollution
Deinking wastes 60
Paper mills 57
Rag digester wastes 60
Sulphite waste liquor 60
White water 58
STUDENY, JOHN, and LIBBY, C. E. Suitability of red pine for the manufacture of sulphite pulp 261
Suction box
Resurfacing grinder P249
Table rolls in P250
Vacuum system P274
Suction roll
Deckle P274
Sprays for cleaning P1
Sudakov process A29
Sugar cane, Stacom process P277
Sulphate process
Douglas fir, effect of sulphidity 224
Heat recovery, TAPPI code ... A30
Odors, prevention of P47
Odors, review of work on A30
Thermal recovery code A30
Sulphate pulp
Bleaching A77
Brightness, effect of mechanical pulp 95
Cable paper, use in P358
Douglas fir A29, 224
Jack pine, growth factors 170
Jordan treatment A62
Silver fir 233
Sulphidity, effect in pulping 224
Sulphite cooking liquor
Organic matter, determination of 114
Physical properties A47
Relief liquor, use of 111
Sulphite waste liquor, use of .. 111
Tower for P275
Sulphite process
Chip length, effect of A48
Chip size, effect of A48
Chip uniformity, effect of A48
Circulation A48
Decayed wood for A61
Grass in P48
Heat recovery, Rosenblad system A48
Liquor regeneration in A48
Red pine 261, 265
Review A48
Sulphur dioxide recovery, Rosenblad system A48
Straw P48
Tail gases, sulphur dioxide recovery P276
Temperature, effect of A47
Western hemlock A47, A61
Sulphite pulp
Jack pine, effect of growth factors 170
Loblolly pine A48
Longleaf pine A48
Pitch, characteristics of 17
Shortleaf pine A48
Slash pine A48
Springwood, effect of A48
Western hemlock
Age of wood, effect of A47
Growth rate, effect of A47
Heartwood A47
Position of wood in log, effect of A48
Sapwood A47
Sulphite waste liquors
Acetovanillone from A29
Adhesive P62
Chemicals, isolation of P147
Combustion P147
Concrete, use in P276
Cooking conditions, effect of .. A61
Cooking liquor, use in 111
Evaporation P276
Fuel, use as P276
Guaiacol from A61
Johnsonburg plant 60
Magnesite brick, use in A61
Organic matter, determination of 114
Pressure heating P62
Stream pollution 60
Sugar content, factors in A61
Sugar from P147
Sulphur dioxide recovery P276
Tanning with P276, P277
Vanillin from P147, P276
Yeast from A61
Sulphochloroamides, action on starch P316
Sulphur
Flax, pulping of P278
Hemp, pulping of P278
Pulping, use in P278
Sulphur burner
Compressed air for A47
Economic considerations A47
Sulphur dioxide
Sulphite process, recovery in ... P276
Sulphite waste liquor, recovery from P276
Tower, adsorption in 345
Water, adsorption in A48, 345
Sveen glue A2
Sveen-Pederson air flotation process A2
Sveen-Pederson save-all 67

T

Table rolls P250
Tall oil
Degreasing composition, use in P47
Evaporaion, flash P277
Paint, use in A30
Purification P277
Tanning material, sulphite waste liquor P276, P277
Tergitol penetrants 63
Terpenol, paper hardening with P163
Terpinol hydrate, paper hardening with P148
Thermocompressor, black liquor evaporation with A47
THOMPSON, SANFORD E. Standards in their relation to production control 251
Titanium compounds, use in bleaching P102
Titanium dioxide
Carbon paper, use in P343
Cigarette paper, use in P344
Paper industry, use in A103
Tissue machine A241
Tobacco stems, Stacom process P277
Toilet paper, embosser P274
Towel
Cream-removal P179
Embosser P274
Embossing P14
Tongue-shaped tears P191
V-shaped tears in P191
Wetting agents, use in 65
Translucency 31
Transmittance 35
Transparency 31
Transparent foils for window containers A14
Trimming strip, laminated P191
Triphenyl phosphate, fireproofing P3
Trucks A2
Typha latifolia flowers, fiber of A13

U

Ultramicroscope, Siedentopf cardioid 194
United States pulp industry A16
Uranine B, use in fluorescence size test 279
Urea, use in gummed tape P358
Urea resin, paper impregnated with P191

V

VAN BECKUM, WILLIAM G., and RITTER, GEORGE J. Yield and viscosity of holocellulose and some of its cellulosic fractions ... 299
VAN DEN AKKER, J. A. Fundamentals of instrumentation 9
———. Neenah expansimeter 297
———, NOLAN, PHILIP, DRESHFIELD, A. C., and HELLER, H. F. The fluorescence size test, an improved method and a new instrument for measuring the water resistance of paper 279
———. *See also* Baldwin, P. C.
Vanillin from sulphite waste liquor P147, P276
Vermiculite, use in paper P241
Vinyl resins
Cigarette paper, use in P344
Leatherboard, use in P247
Sizing with P316
VIVIAN, J. EDWARD. See Whitney, R. P.
Vulcanized fiber, thick walled tube P218

W

Wall paper, washable P178
Wallboard
Laminated P217
Rubber hydrochloride in P217
Washcloth, parchment paper for P179
Washing
Electrolytic cells A3
Pulp, electrolytic method A3
Vulcanized fiber A3
Waste paper
Breaker beater for P275
Deinking P26, P275
Disintegration P275
Kuhn system A26
Lamort disintegrator A26
Pulp, screening P275
Water
Sanitary quality of pulp, relation to 7, 8
Sizing, effect on A76
Sulphur dioxide, absorption of .. 345
Sulphur dioxide, solubility of .. A48
Water supply of South 161
Water treatment, chlorine 145
Waterproofing
Acid amides for P178
Creped paper A15
Heating paper to produce P150
Hydrogenated fish oil P341
Wax emulsion, sizing with P148
Weatherboarding P240
WEBER, CHARLES G. Some of the paper problems on multicolor offset printing 205
WEST, CLARENCE J. U. S. patents 37, 219
Western hemlock
Chemical analysis 263
Fiber dimensions 262
Weston photronic cell 95
Wet end, Black Clawson A104
Wet strength of esterified paper P358

Wetting agents
Applications 65
Blotting paper, use in..... 65
Classification 63
Cleansing tissues, use in..... 65
Paper, use in..... P247
Pulp, use in..... P148
Towels, use in..... 65
White liquor, conductometric analysis A30
White oak, ray cells..... 303
White pine, composition..... 313
White spruce, celluloses from..... 300
White water
Air treatment..... 68
Automatic filter..... P278
Biochemical oxygen demand.... 58
Closed system, whirling motion in P248
Drum filter..... P278
Dye-containing, transmission measurements 334
Fibers, determination of..... P278
Gelatin treatment..... A2
Glue treatment..... A2, 67
Stream pollution..... 58
Sveen glue treatment A2
WHITNEY, ROY P., and VIVIAN, J. EDWARD. Chemical stack losses and their recovery in the soda process..... 4
WILKES, B. G., and ROBERTSON, H. F. New surface active chemicals 63
WILLETS, W. R., BINGHAM, R. T., and ERIKSEN, L. H. Factors affecting lined board brightness 91
———, ——, and ——. Effect of filler brightness on lined board brightness 308
Winder
Double carrying rolls..... P1
Electric regulator..... A2
See also Rewinder
Wisconsin paper industry..... A16
Wood
Cellulose, location of..... 242
Cuprammonium hydroxide solubility, effect of gelatinization 311
Defibering P302
Asplund defibrator..... P302
Fiber content..... A25
Gelatinization degree..... A28
Gelatinization method..... 312
Gelatinized, cuprammonium solubility 311
Lignin, location of..... 242
Literature sources 289
Medullary rays content..... A25
Moisture determination in..... A26
Nitric acid, action of..... A26
Parenchyma content..... A25
Reducing substances
Chlorine, action of..... 135
Location of..... 135
Sources of..... 138
Stain reactions..... 135
Sigma testing instrument..... A25
See also Pulpwood

Z

Zinc chloride, solvent for cellulose A27

Government Paper Bids and Awards

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 17, 1940—Mudge Paper Company has been awarded the contract for furnishing the Government Printing Office with 6,250 pounds (50,000 sheets) of 50 per cent rag, 20 x 25 blue Antique paper at 9.85 cents, bids for which were received on December 27.

Link Paper Company will furnish 10,000 pounds of oiled manila tympan paper in 48" rolls at 7.5 cents. Old Dominion Paper Company will furnish 53,120 pounds of buff bristol board in 18" rolls at 4.089 cents. Mudge Paper Company will furnish 39,008 pounds of 50 per cent rag, 24 x 40 ledger paper at 9.21 cents. Marquette Paper Company will furnish 51,000 pounds of 28 x 34 white sulphite bond paper at 5.63 cents. Bids for all of these items were received on December 22.

Whitaker Paper Company will furnish 42,250 pounds (250,000 sheets) of 28 x 41 dull coated book paper at 7.03 cents, bids for which were received on December 18.

Whitaker Paper Company will also furnish 45,600 pounds (600,000 sheets) of 22¼ x 32¼ M.F. book paper at 4.71 cents. Stanford Paper Company will furnish 5,100 pounds (50,000 sheets) of 50 per cent rag, 28 x 34 green bond paper at 8.88 cents. Cauthorne Paper Company will furnish 1,000 pounds of white stereotype molding paper in 24 inch rolls at 8.9 cents. Bids for these items were received on December 15.

The Printing Office received the following bids for 40,000 pounds of yellow sulphite writing paper; R. P. Andrews Paper Company, 6.19 cents; Perkins-Goodwin Company, 5.713 cents; Cauthorne Paper Company 5.94 cents; Whitaker Paper Company, 5.25 cents; Barton, Duer & Koch Paper Company, 5.44 cents; Old Dominion Paper Company, 6.127 cents; Mudge Paper Company, 5.89 cents; Stanford Paper Company, 5.8 cents; and Mathers-Lamm Paper Company, 5.96 cents.

For 2,000 pounds of white stereotype molding paper; Cauthorne Paper Company, 8.9 cents; and Russell Products Company, 12 cents.

For 7.115 pounds of 50 per cent rag, blue bond paper; Aetna Paper Company, 11.23 cents; Stanford Paper Company, 10.39 cents; Butler Company, 10.933 cents; Mudge Paper Company, 15.28 cents; Barton, Duer & Koch Paper Company, 12.5 cents; Paper Corp. of U. S., 12.31 cents; R. P. Andrews Paper Company, 10.79 cents; and Old Dominion Paper Company, 14.99 cents.

For 40,500 pounds of 100 per cent rag, 4¼ x 10 ledger filing jackets; Mathers-Lamm Paper Company, $8.00 per M sheets; Charles W. Beers & Company, $8.35; Barton, Duer & Koch Paper Company, $8.05; Whitaker Paper Company, $8.25; Virginia Paper Company, $10.75; R. Carter Ballantyne, $8.10; Walcott-Taylor Company, $25.70 less 1/10 per cent.

For 30,000 pounds of 34 x 36 white cloth lined paper; Middlesex Products Corp., $88.00 less 2 per cent per M sheets; Thomas Barrett & Son, $87.50; Cauthorne Paper Company, $84.128; Nashua Gummed & Coated Paper Company, $98.60 less 2 per cent; Mathers-Lamm Paper Company, $84.95; Whitaker Paper Company, $84.20; Nudge Paper Company, $84.10; R. P. Andrews Paper Company, $87.43; and Walker Goulard Plehn Company, $89.40 less 2 per cent.

New Onion Skin and Manifold Guide

The new onion skin and manifold guide of the Chemical Paper Manufacturing Company, Holyoke, Mass. is an extremely useful reference book, containing as it does a complete line of samples of all the standard grades of lightweight papers, ranging from Myriad Onion Skin (100 per cent rag) down through Buyers Onion Skin (75 per cent rag), Sheerleaf Onion Skin (25 per cent rag), Bantam Manifold (No. 1 sulphite), Daily Sales Manifold (No. 2 sulphite), and Item Manifold (No. 3 sulphite).

Complete information about each line is included, as well as a list of merchants who carry the line in stock. In addition there are a number of printed specimens showing work done on the various grades which are valuable as use for suggestions.

The growing use of lightweight papers for advertising literature, air mail and foreign correspondence, and many other uses has developed a need for an aid of some sort in selecting the right lightweight paper for the job. Chemical Paper Manufacturing Company has now filled this need by producing its Onion Skin and Manifold Guide. It is logical, the company states, that it should be the first to come out with such a help because it believes that it is about the only mill in the country which regularly manufactures and stocks under one roof all of the standard lightweight grades from 100 per cent rag down to No. 3 sulphite. Interested persons may secure a copy of the guide by writing direct to the company.

Imports of Paper and Paper Making Stock

Giving Manifests of New York, Boston, Philadelphia and Other Ports of Newsprint, Wrapping, Writing, Coated, Blotting, Tissue, Strawboard, Wallboard, Cigarette Papers, Sulphite, Kraft and Ground Wood Pulp.

NEW YORK IMPORTS

WEEK ENDING JANUARY 13, 1940

SUMMARY

Cigarette paper .....68 cs.
Filter paper .....27 bls.
Surface coated paper .....161 cs.
Surface baryta coated and basic paper.....41 cs.
Miscellaneous paper .....33 bls., 21 cs.

CIGARETTE PAPER

Clark Fruitier, ——, Havre, 68 cs.

FILTER PAPER

A. Giese & Son, *Edam,* Rotterdam, 27 bls.

SURFACE COATED PAPER

Gevaert Co. of America, *Edam,* Antwerp, 161 cs.

SURFACE BARYTA COATED AND BASIC PAPER

P. Puttmann, *Edam,* Antwerp, 41 cs.

MISCELLANEOUS PAPER

Coty, Inc., ——, Havre, 4 cs.
Lansen Naeve Corp., ——, Havre, 33 bls.
——, ——, Havre, 17 cs.

RAGS, BAGGINGS, ETC.

National City Bank, *Edam,* Antwerp, 213 bls. rayon waste.
——, *Express,* Lisbon, 111 bls. bagging.

CASEIN

A. Hurst & Co., *Argentina,* Buenos Aires, 2,000 bags.
American British Chemical Supplies, *Argentina,* Buenos Aires, 834 bags.
Tupman Thurlow & Co., *Argentina,* Buenos Aires, 1,667 bags.
G. H. Hammond Co., *Argentina,* Buenos Aires, 2,032 bags.
Balfour Guthrie & Co., *Molda,* Buenos Aires, 2,198 bags.
American British Chemical Supplies, *Red Jacket,* Buenos Aires, 417 bags.
Packing & Produce Co., *Red Jacket,* Buenos Aires, 812 bags.

WOOD PULP

Perkins Goodwin & Co., *Frode,* Norrsundet, 6,273 bls. dry sulphate.
Pagel Horton & Co., Inc., *Frode,* Gefle, 15,000 bls. dry sulphite.

BOSTON IMPORTS

WEEK ENDING JANUARY 13, 1940

Pagel Horton & Co., Inc., *Hjelmaren,* Sweden, 2,100 bls. wood pulp.
Pagel Horton & Co., Inc., *Rydboholm,* Sweden, 3,520 bls. wood pulp.
Pagel Horton & Co., Inc., *Glimmaren,* Sweden, 5,200 bls. wood pulp.

PORTLAND IMPORTS

WEEK ENDING JANUARY 13, 1940

M. Sone, *Glimmaren,* Gothenburg, 1,275 bls. wood pulp.
M. Sone, *Rodmanso,* Sundsvall, 3,000 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING JANUARY 13, 1940

American Cyanamid & Chemical Corp., *Red Jacket,* Buenos Aires, 600 bags casein.
——, *Red Jacket,* Buenos Aires, 300 bags casein.
Price & Pierce, Ltd., *Kanangoora,* ——, 120 bls. bleached sulphite.

BALTIMORE IMPORTS

WEEK ENDING JANUARY 13, 1940

Pagel Horton & Co., Inc., *Brosund,* Sweden, 5,250 bls. wood pulp.
Price & Pierce, Ltd., *Kanangoora,* ——, 210 bls. bleached sulphite, 1,140 bls. unbleached sulphite.
Pagel Horton & Co., Inc., *Hemland,* Sweden, 7,000 bls. wood pulp.
Price & Pierce, Ltd., *Peiping,* ——, 600 bls. unbleached sulphite, 1,200 bls. bleached sulphate.
Pagel Horton & Co., Inc., *Herta Maersk,* Sweden, 11,700 bls. wood pulp.
M. Sone, *Hemland,* Gothenburg, 6,250 bls. wood pulp.
M. Sone, *Alssund,* Soderhamn, 1,000 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING JANUARY 13, 1940

Tupman Thurlow & Co., *Red Jacket,* Buenos Aires, 834 bags casein.

PORT ON GULF

WEEK ENDING JANUARY 13, 1940

Price & Pierce, Ltd., *Braheholm,* ——, 6,000 bls. unbleached sulphate.

LOS ANGELES IMPORTS

WEEK ENDING JANUARY 13, 1940

——, *Hokuroku Maru,* Shanghai, 66 tons rags.

See Markets for Paper from Cotton

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 17, 1940—J. B. Wyckoff of the Division of Marketing and Marketing agreements of the Department of Agriculture which last week announced a demonstrational program under which a small amount of low-grade cotton will be used in the manufacture of high-quality paper states that: "If actual use under the program demonstrates to manufacturers the feasibility of using lower priced cotton fibers in making fine paper, an opportunity for expanding markets for such paper should be afforded. Such a development would create an outlet for substantial quantities of additional raw materials which normally compete with higher grade spinning cotton and constitute a price-depressing element in normal trade channels."

Dominion Corrugated Plant Burns

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 15, 1940—A disastrous fire broke out in the plant of the Dominion Corrugated Paper Co., Junction Road and Weston Road, Toronto, on January 9 with a loss estimated as high as $100,000. Officials of the company said that the plant housed machinery valued at this sum and it is doubtful if much can be salvaged as the building was badly gutted. There was a stock of processed and raw paper in the plant valued at $20,000. The building was worth about $40,000.

Will Exhibit at Paper Show

The exhibit of wrapping papers, paper products, twines and kindred lines conducted by the National Paper Trade Association in connection with its Convention February 19-22 promises to be the largest since this feature was initiated. More applications have already come in than ever before received to corresponding date.

The manufacturers who have made their reservations to date are as follows: American Paper Goods Company, A. W. Archer Company, Inc.; Better Packages, Inc.; Boston Drinking Cup Company, Crystal Paper Service Corp., Dennison Manufacturing Company, Eagle Cup Corporation, Erving Paper Mills, Gilson Bros., Inc.; John M. Hart Company, Inc.; Herz Manufacturing Company, Hinde & Dauch Paper Company, Hoberg Paper Mills, Hudson Pulp and Paper Company, Loroco Industries, Inc.; Orchard Paper Company, Oval Wood Dish Corporation, Pejepscot Paper Company, Racquette River Paper Company, Riegel Paper Corporation, Royal Paper Corporation, Self-Locking Carton Company, Universal Paper Products Company, Victoria Paper Mills Company, Voorhis-Tiebout Company, Inc., and White-Washburne Company, Inc.

G. A. Ritter Goes to Delair, N. J.

G. A. Ritter, plant manager of the Herty Foundation Laboratory, has accepted a position as technical director of the Kieckhefer Container Company plant at Delair, N. J.

Mr. Ritter came to the Herty Foundation Laboratory May 23, 1938, having been employed by Dr. Herty before his death.

Before joining the staff of the Herty Laboratory, Mr. Ritter was maintenance engineer with the Container Corporation of America of the Manayunk plant in Pennsylvania. He had also held a number of other responsible positions in the paper industry, and was highly regarded by Dr. Herty.

In addition to his wide experience in the paper industry, Mr. Ritter has had extensive training. He is a graduate of Union College, Schenectady, N. Y., where he took a B. S. degree in chemistry. Later he took post graduate work in physical chemistry, chemical engineering and organic chemistry at the Renssalaer Polytechnic Institute, Troy, N. Y.

Book Paper Hearings Resumed

The hearings being conducted by the Federal Trade Commission in its investigation of conditions prevailing in the book paper industry, opened in the West this month and were transferred to New York. At the resumption of the investigation held at the office of the Federal Trade Commission, 45 Broadway, New York, on January 15, the following testified:

Charles Dumphy, Newton Falls Paper Company, Newton Falls, N. Y.

L. H. Jackson, Stecker-Prang Lithographic Corporation, Rochester, N. Y.

Russell Madden, American Writing Paper Corporation, Holyoke, Mass.

L. H. Gartland, B. M. Bare Paper Company, Roaring Spring, Pa.

Nothing of importance was brought out on the opening day. The hearings will continue for two weeks.

Georgia Plans to Honor Dr. Herty

ATLANTA, Ga., January 15, 1940—In memory of the late Dr. Charles H. Herty, distinguished New York and Georgia scientist, the campaign to found the Herty Forest Institute in Georgia received impetus today as State leaders and organizations joined in a "Doctor Herty Week" observance.

Governor E. D. Rivers, who has accepted the post of honorary chairman of the Dr. Charles H. Herty Testimonial Fund for the creation of the institute, the fund to be raised by public subscription, set aside "Doctor Herty Week" by proclamation.

The observance will be marked by the dedication Thursday of two model demonstration forests in honor of the scientist. One of the dedication ceremonies will be held near Eastman and the other near Cochran.

The proposed Herty Forest Institute will be located at Waycross, in the heart of the vast forest section to which the scientist gave a new industrial and agricultural economy. An option has been obtained on a five-story brick structure and architectural plans have been made for remodeling the building along classic Georgian lines.

According to the program, the building will house a museum containing permanent exhibits representative of the naval stores and pulp and paper industries, a library and art gallery. The building will also serve as headquarters from which will be conducted an educational program under the direction of a full-time forester and trained staff, working in cooperation with Federal and State agencies. Eventually, it is proposed to establish a number of demonstration forests along the trunk highways of South Georgia.

Emphasis in the demonstration forest scheme will be placed on a system of Junior Forest Rangers, composed of boys and girls, who will assist in the management of the Herty Forests. Continuous training of youths in 4-H clubs, Future Farmers of America chapters, Boy Scout units, vocational and other groups is planned.

Harry S. Goldstein Is Renominated

At a recent meeting of the nominating committee selected by the board of directors of the National Association of Waste Material Dealers, Inc., at its December meeting, Harry S. Goldstein of L. Goldstein's Sons, Philadelphia, was unanimously renominated for the presidency of the association. At the annual meeting of the association which is to be held on March 20, aside from the re-election of Mr. Goldstein as president, there will also be elected one-half of the board of directors, or fifteen members. Present indications are that the attendance at the convention is to be the largest in the history of the association.

Retires After 45 Years of Service

Albert W. Gosha, boss machine tender for the Kimberly-Clark Corporation at Kimberly, Wis., retired last week after being with the company for 45 years. He had a total of 29 years of service at the Kimberly mill and also worked for the company at Niagara and Neenah, Wis. He had only one minor accident during the entire time.

New York Paper and Pulp Market Review

Outlook For Paper Industry and Trade Continues Bright With About 10 Per Cent Rise In Volume Expected For Year—Pulp Prices Firm With Higher Prices Expected In Second Quarter—Waste Paper Markets Slow.

Office of the PAPER TRADE JOURNAL,
Wednesday, January 17, 1940

The outlook for the paper industry and trade continues bright, with the expectation, based on underlying factors, that business will be at least ten per cent higher this year than in 1939. The index of general business activity for the week ended January 6, declined to 105.9 per cent, from 106.8 per cent for the preceding week, compared with 93.3 per cent for the corresponding period last year.

Paper production of 177 mills for the week ended January 6 was estimated at 82.5 per cent, compared with 66.1 per cent in 1939, with 59.0 per cent in 1938, with 93.2 per cent in 1937, and with 75.8 per cent for the like week in 1936.

Paper board production for the week ended January 6 was 65.0 per cent, compared with 45.0 per cent in 1939 and 1938, with 77.0 per cent in 1937, and with 65.0 per cent for the like week in 1936.

According to the latest survey by the Temporary National Economic Committee, only a small rise has occurred in the average price level, but larger increases have occurred in raw materials and in semi-finished goods. The general increase since August, 1939, has been 3.4 per cent, while raw material prices have risen 11 per cent and semi-manufactured goods 12 per cent.

The outlook in the newsprint industry is good though somewhat dimmed by the small increase in newspaper advertising linage. The gain in December, 1939, over the like month in 1938, in fifty-two cities, was 1.5 per cent, compared with a loss of approximately 13 per cent in 1938. National advertising for 1939 was about equal to that of 1938, with a 0.9 per cent decline in classified advertising linage.

The wholesale paper market continues firm with the general trade expectation of an increase in activity during the latter part of this month. Reports from many manufacturers' representatives, jobbers, and general paper merchants, indicate that buying continues rather slow in most lines. Kraft liner board continues active with a large export demand. Kraft papers and tissue papers are reported as having leveled off.

Paper board has also been less active since the turn of the year but an increase in volume is expected soon. In all divisions of the paper industry and trade prospects for 1940 are reported in most quarters to appear favorable for a better year in 1940 than was the record-breaking year of 1939. Prices are expected to advance a little, but contract prices remain firm and unchanged at this date.

Mechanical Pulp

Demand for mechanical pulp continues active. Prices on all grades of domestic and imported pulp are firm and unchanged.

Chemical Pulp

Prices on all kinds of chemical pulp are very firm and prime qualities are reported scarce. An advance in prices has been made to cover increased costs and while no change from current contract prices is immediately expected, present quotations are understood to be good only for the first quarter of this year. Prime bleached sulphite is currently quoted at from 3.00 to 3.25, easy bleaching sulphite at from 2.75 to 2.85, strong unbleached sulphite at from 2.75 to 2.80, No. 1 kraft at from 2.40 to 2.55, and domestic kraft pulp at from 1.80 to 2.12½.

Rags

The demand for most grades of domestic rags continues moderate to light, with the higher grades, such as white shirt cuttings and new unbleached rags firm and higher. No. 1 white shirt cuttings are currently quoted at from 7.50 to 7.75, and new unbleached at the same figures.

Old Rope and Bagging

The old rope market reports prices as firm with supplies of domestic and foreign Manila declining. Mill buying continues steady. The current quotations for mills remain unchanged at 4.50.

The old bagging market continues steady, with prices firm on No. 1 domestic and foreign gunny. No price changes have been reported this week.

Old Waste Paper

No important change in demand or prices has been reported on any grade of paper stock this week. No. 1 mixed papers are reported as soft, with some quarters of the trade reporting sales of old corrugated at slightly above prevailing market quotations.

Twine

Prices on twine remain unchanged and firm. Imported grades are expected to show some price advances in the future, but any increases in current quotations is held to be dependent upon improved demand contingent upon general business activity.

Dee & Anderson Add New Lines

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 15, 1940—Dee & Anderson have added three new lines to the products whose manufacturers they represent: The Economy Box and Pie Plate Company, Marion, Ind., manufacturers of straws, fiber spoons, package goods, household rolls, tissues and Christmas wraps; the Michigan Metal Products Company, Battle Creek, Mich., makers of a white sanitary fiber plate for serving food, and the E. O. Bulman Manufacturing Company, Grand Rapids, Mich., steel store equipment, with paper cutters and paper and twine hardware among the products.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, January 17, 1940.

BLANC FIXE—Prices on blanc fixe are firm under a moderately good demand. The pulp is currently quoted at $32 per ton, in bags, at works; the powder is quoted at $47.50 per ton, in barrels, at works.

BLEACHING POWDER—Quotations on bleaching powder are firm under a moderately good demand and unchanged at prevailing market levels. Bleaching powder is currently quoted at $2 per 100 pounds, in drums, at works.

CASEIN—Prices on casein are a little lower for the current week. Standard domestic casein, 20-30 mesh, is currently quoted at 14½ cents per pound; 80-100 mesh, at 15 cents per pound. All prices in bags, car lots. Argentina casein, 20-30 mesh, is quoted at 14 cents per pound. The quotation of 14 cents per pound on French casein is nominal.

CAUSTIC SODA—Quotations on caustic soda are firm under a moderately good demand. Solid caustic soda is currently quoted at $2.30 per 100 pounds; flake and ground at $2.70 per 100 pounds, in drums, at works.

CHINA CLAY—Prices on china clay are reported firm and unchanged. Domestic filler clay is currently quoted at from $7 to $15 per ton; coating clay at from $11 to $22 per ton, at mines. Imported clay is quoted at from $13.50 to $25 per ton, ship side.

CHLORINE—Quotations on chlorine are firm under a moderately good demand and conform to prevailing market levels. Chlorine is currently quoted at $1.75 per 100 pounds, in single-unit tank cars, f.o.b., works.

ROSIN—The rosin market is reported firm for the week, with prices on some grades higher. "G" gum rosin is currently quoted at $5.20 per 280 pounds, gross weight, in barrels, Savannah. "FF" wood rosin is quoted at $5 per 280 pounds, gross weight, in barrels, New York. Seventy per cent gum rosin size is offered at $2.81 per 100 pounds, f.o.b., shipping point.

SALT CAKE—Prices on salt cake continue firm under a good demand and are practically nominal. Domestic salt cake is currently quoted at $17 per ton, in bulk; chrome salt cake at $16 per ton; all prices car lots, f.o.b., shipping point. The price of $18 per ton on imported salt cake is nominal.

SODA ASH—Quotations on soda ash are firm and continue unchanged at prevailing market levels. Quotations on soda ash in car lots, per 100 pounds, are as follows: in bulk, $.90; in paper bags, $1.05; and in barrels, $1.35.

STARCH—Quotations on corn starch are reported unchanged for the current week. Globe Pearl is currently quoted at $2.50 per 100 pounds; special paper starch at $2.60 per 100 pounds. All prices in bags, f.o.b., Chicago.

SULPHATE OF ALUMINA—Prices on sulphate of alumina are firm and unchanged at prevailing market levels. The commercial grades are currently quoted at $1.15 per 100 pounds; iron free at $1.45 per 100 pounds, in bags, car lots, f.o.b., works.

SULPHUR—Quotations on sulphur are firm and continue unchanged at prevailing market prices. Annual contracts are quoted at $16 per long ton, f.o.b., mines. Spot and nearby car lots are offered at $19 per ton.

TALC—Prices on talc are reported firm and to conform to prevailing market quotations. Domestic talc is currently quoted at from $15 to $18 per ton, Eastern mines. Imported talc is offered at from $23 to $45 per ton.

Market Quotations

Paper

(Delivered New York)

News, per ton—			
Roll, contract	$50.00	@	—
Sheets	58.00	"	—
Kraft—per cwt.—Delivered Zone A			
Northern, Extra Quality	$5.00	@	$5.50
Superstandard	4.62½	"	5.00
Northern Standard Wrapping	4.25	"	4.62½
Standard Wrapping	4.00	"	—
Tissues—Per Ream—Carlots			
White No. 1	.87½	@	—
White No. 1 M. G.	.85	"	—
White No. 1½	.70	"	—
White No. 2	.65	"	—
Anti-Tarnish M. G.	.75	"	—
Colored	.80	"	—
Kraft	.75	"	—
Manila	.65	"	—
Unbl. Toilet, 1 M.	3.50	"	—
Bleached Toilet	5.26	"	—
Paper Towels, Per Case—			
Unbleached, Jr.	1.85	@	—
Bleached, Jr.	3.20	"	—
Manila—per cwt.—C. l. f. a.			
No. 1 Jute	8.25	@	10.25
No. 1 Manila Wrapping, 35 lb.	5.25	"	—
No. 2 Manila Wrapping, 35 lb.	5.00	"	—
Boards, per ton—			
News	45.00	@	—
Chip	45.00	"	—
Sgl. Mla. Ll. Chip	57.50	"	—
Jute Lined Chip	57.50	"	—
White Pat. Coated	70.00	"	—
Kraft Liners	55.00	"	—
Binders Boards	76.00	"	87.00

The following are representative of distributors' resale prices:

Rag Content Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:

	Bonds		Ledgers	
100% Rag Ext. No. 1	$39.10 @	$46.00	$40.25 @	$47.25
100% Rag	31.05 "	36.50	32.20 "	37.75
85% Rag	.... "	....	29.90 "	35.00
75% Rag	23.60 "	27.75	24.75 "	29.00
65% Rag	.... "	....	21.65 "	26.25
50% Rag	17.55 "	21.50	18.70 "	22.75
25% Rag	14.65 "	17.75	15.80 "	19.25

Colors at $1.00 cwt. extra.

Sulphite Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:

	Bonds		Ledgers	
No. 1	$8.95 @	$11.00	$10.10 @	$12.25
No. 2	8.05 "	9.75	9.25 "	11.25
No. 3	7.60 "	9.25	8.50 "	10.75
No. 4	7.30 "	9.00	8.50 "	10.25

Colors $1.00 cwt. extra.

Free Sheet Book Papers—White, Cased Paper, Delivered in Zone 1:

No. 1 Glossy Coated	$11.90	@	$13.50
No. 2 Glossy Coated	10.35	"	11.75
No. 3 Glossy Coated	9.55	"	11.00
No. 4 Glossy Coated	9.15	"	10.50
No. 1 Antique (watermarked)	8.35	"	9.50
No. 2 Offset	7.70	"	9.00
A Grade E. F.	7.50	"	8.75
A Grade S. & S. C.	7.75	"	9.00
B Grade E. F.	6.95	"	8.00
B Grade S. & S. C.	7.20	"	8.25
C Grade E. F.	6.65	"	7.75
C Grade S. & S. C.	6.90	"	8.00
D Grade E. F.	6.40	"	7.50
D Grade S. & S. C.	6.65	"	7.75

Ivory & India at $.50 cwt. extra.

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	$35.00	@	40.00
Dry	37.50	"	42.50
(Delivered)			
No. 1 Domestic and Canadian	40.00	@	42.90

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—			
Prime Bleached Sulphite	3.00	@	3.25
Prime Qualities—			
Easy-Bleaching Sulphite	2.75	"	2.85
Strong Unbleached Sulphite	2.75	"	2.80
(On Dock, Atlantic Ports)			
Kraft Bleached	3.00	@	3.50
Kraft Light & Strong	2.50	"	2.65
Kraft No. 1	2.40	"	2.55
(F. o. b. Pulp Mill)			
Kraft Domestic	1.80	"	2.12½
(Delivered)			
Soda Bleached	2.90	"	—

Add 60 cents per short ton, dock charges for Albany; $2.50 for Lake Ports East and $3.50 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	7.50	@	7.75
Silesias No. 1	4.50	"	4.75
New Unbleached	7.50	"	7.75
Blue Overall	5.00	"	5.25
Fancy	2.25	"	2.50
Washables	2.00	"	2.15
Mixed Khaki Cuttings	2.75	"	3.00
O. D. Khaki Cuttings	3.25	"	3.50

Old Rags

White, No. 1—			
Repacked	3.25	"	3.50
Miscellaneous	2.75	"	3.00
White, No. 2—			
Repacked	2.50	"	2.75
Miscellaneous	2.00	"	2.25
Thirds and Blues—			
Repacked	2.00	"	2.25
Miscellaneous	1.75	"	1.90
Roofing Rags—			
No. 1	1.50	"	1.55
No. 2	1.20	"	1.27½
No. 3 (bagging)	1.50	"	1.60
No. 4	.60	"	.65
No. 5A	.60	"	.65

Foreign Rags

All prices nominal.

New Rags

New Dark Cuttings	2.25	@	2.40
New Mixed Cuttings	2.00	"	2.20
New Light Silesias	5.50	"	5.75
Light Flannelettes	5.50	"	5.75
New White Cuttings	7.00	"	7.50
New Light Oxford	4.00	"	4.50
New Light Prints	3.00	"	3.25

Old Rags

No. 1 White Linens	7.50	"	8.50
No. 2 White Linens	6.50	"	7.50
No. 3 White Linens	4.50	"	—

J. Andersen & Co.

Selling Agents

21 East 40th Street

New York

CHEMICAL & MECHANICAL PULP

Kraft Pulp

BERGVIK OCH ALA NYA AKTIEBOLAG
Söderhamn, Sweden
KALIX TRÄINDUSTRI AKTIEBOLAG
Vanaffärden, Sweden
MUNKSUNDS AKTIEBOLAG
Munksund, Sweden
NENSJÖ CELLULOSA A.-B.
Sprängsvikon, Sweden

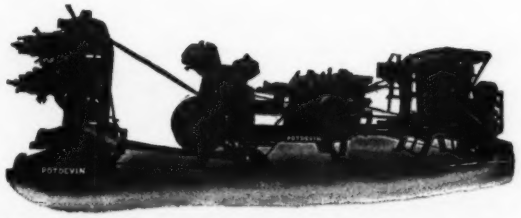
Bleached Sulphite

KELLNER-PARTINGTON PAPER PULP CO., LTD.
Serpsborg, Norway
Edsvalla, Sweden
Hallein & Villach, Austria

Unbleached Sulphite

AKTIESELSKABET GREAKER CELLULOSEFABRIK
Greaker, Norway
BERGVIK OCH ALA NYA AKTIEBOLAG
Söderhamn, Sweden
CELLULOSEFABRIKS A.-G.
Bratislava, Czecho-Slovakia
SVANÖ AKTIEBOLAG
Svanö, Sweden

Business Starts With Buying



POTDEVIN Aniline Printing Self-Opening Square Paper Bag Machine

. . . and it is good business to buy the best. POTDEVIN bag machines have behind them years of tried and proven worth. Practically every bag factory in the country gives witness to the satisfaction and dependability of POTDEVIN equipment.

POTDEVIN

PAPER BAG MACHINES

PRINTING PRESSES, WAXING MACHINES

POTDEVIN MACHINE CO.
1223 38th Street Brooklyn, New York
Established 1897

THE DRAPER FELTS

All kinds and styles of Felts for all kinds and styles of Papers.

Write us about your Felt problems and let us help you reduce your Felt Costs—we will call anywhere at any time.

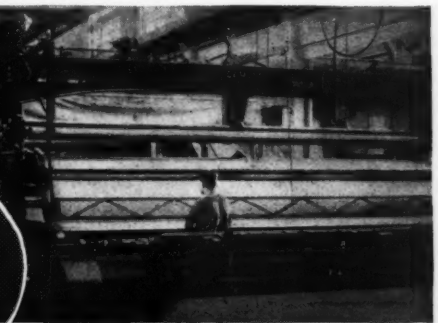
DRAPER BROS. COMPANY

CANTON, MASS.

Woolen manufacturers since 1856

Good paper deserves to be put up in good rolls -- poor paper demands it. Good paper will almost sell itself, but in poor rolls it requires considerable selling. Use CAMACHINE Winders for good rolls.

GOOD ROLLS ARE



EASIER TO SELL

CAMERON MACHINE COMPANY
61 Poplar St. BROOKLYN, N.Y.

No. 4 White Linens.	2.25	@	3.25
No. 1 White Cotton.	4.25	"	4.75
No. 2 White Cotton.	3.25	"	3.75
No. 3 White Cotton.	2.50	"	3.00
No. 4 White Cotton.	1.90	"	2.20
Extra Light Prints..	2.00	"	2.40
Ord. Light Prints...	1.75	"	2.15
Med. Light Prints...	1.55	"	1.95
Dutch Blue Cottons.	2.25	"	2.50
French Blue Linens..	3.00	"	—
Checks and Blues...	2.00	"	—
Linsey Garments....	1.90	"	2.00
Dark Cottons.....	1.50	"	1.60
Old Shopperies.....	1.30	"	1.45
New Shopperies.....	1.45	"	1.50
French Blues.....	2.25	"	2.50

Old Rope and Bagging

(Prices to Mill, f. o. b. N. Y.)

Gunny No. 1—			
Foreign	2.50	@	2.75
Domestic	2.25	"	2.50
Wool Tares, light...	1.75	"	2.00
Wool Tares, heavy..	1.80	"	1.90
Bright Bagging.....	2.25	"	2.50
Manila Rope—			
Foreign	4.25	"	4.50
Domestic	4.25	"	4.50
Jute Threads.....	3.00	"	3.25
Sisal Strings.....	2.00	"	2.25
Mixed Strings.....	.70	"	.85

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	3.10	@	3.25
Ordinary Hard White No. 1....	2.25	@	2.50
Soft White No. 1..	1.80	"	1.90
Soft White Extra..	2.50	"	2.60
Flat Stock—			
Stitchless	1.10	"	1.25
Overissue Mag....	1.00	"	1.10
Solid Flat Book...	.80	"	.90
Crumbled No. 1...	.70	"	.75
Ledger White Stock	1.50	"	1.60
Ledger Stock Colored	1.05	"	1.15
Manila—			
New Env. Cut....	1.70	"	1.80
New Cuttings.....	1.40	"	1.50
Old Kraft Machine— Compressed bales..	1.00	"	1.10
News—			
No. 1 White News	1.75	"	1.90
Strictly Overissue.	.70	"	.75
Strictly Folded....	.47½	"	.52½
Corrugated	.60	"	.65
No. 1 Mixed Paper..	.27½	"	.32½

Twines

(F. o. b. Mill)

(Soft Fiber)

Coarse Polished—			
India	.18½	@	—
White Hemp.....	.18½	"	—
Fine Polished—			
Fine India.....	.23	"	—
Unpolished—			
Box	.14¾	"	—
Paper Makers.....	.15	"	—
Tube Rope.....	.16¼	"	—
Wall Paper.....	.15¾	"	—
Wrapping	.18	"	—
Soft Fiber Rope...	.16¼	"	—
Cotton	.21	"	—

(Hard Fiber)

Medium Java.....	.19	"	—
Mex. Sisal.....	.16	"	—
Manila	.24	"	—
Domestic	4.00	@	4.50
Sisal Rope	2.25	"	2.50
Mixed Rope	.75	"	1.00
Transmission Rope ..	3.00	"	—
Soft Jute Ropes.....	3.00	"	3.50
Jute Carpet Threads.	1.25	"	1.50
Gunny Bagging—			
Foreign	2.50	"	—
Domestic	2.25	"	2.30
Bleachery Burlap....	3.50	"	3.75
Scrap Burlap—			
Foreign	2.40	"	2.50
Domestic	1.90	"	2.00
Scrap Sisal.....	2.25	"	2.50
Scrap Sisal for Shredding	2.50	"	2.75
Wool Tares, Heavy..	2.50	"	2.60
New Burlap Cuttings	3.25	"	3.50
Aust. Wool Pouches.	3.25	"	3.50
Heavy baling bagging	2.65	"	2.75
Paper Mill Bagging..	1.25	"	1.50
No. 2 Bagging	1.10	"	1.25

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints...	.03¼	@	.03½
New White No. 1...	.08	"	.08¼
New Light Flannelettes	.05	"	—
Silesias No. 1	.05	"	—
New Black Silesias..	.03½	"	.03¾
Soft Unbleached....	7.50	"	8.00
Blue Cheviots	.05½	"	.06
Fancy	.02	"	.02½
Washable	.02	"	.02½
Cottons—According to grades—			
Blue Overalls	.05¼	"	.05½
New Black, soft ..	.03¼	@	.04
Khaki Cuttings	.02½	"	.03
O. D. Khaki	03	"	.03¼
Corduroy	.02¾	"	.03
New Canvas.....	.06¾	"	.07¼
B. V. D. Cuttings...	.07	"	.07½

Domestic Rags (Old)

(F. o.b. Boston)

Canvas	.04¼	@	—
White No. 1—			
Repacked	—	"	2.75
Miscellaneous	2.50	"	2.75
White No. 2—			
Repacked	1.90	"	2.00
Miscellaneous	2.00	"	2.25
Twos and Blues	2.25	"	2.50
Old Blue Overalls ..	1.60	"	2.00
Thirds and Blues—			
Repacked	2.00	"	2.25
Miscellaneous	1.50	"	1.60
Black Stockings	4.00	"	4.25
Roofing Stock—			
No. 1.....	1.75	"	2.00
No. 2.....	1.60	"	1.65
No. 3.....	1.00	"	1.25

Foreign Rags

(F. o. b. Boston)

Dark Cottons.....	(nominal)
Dutch Blues.....	(nominal)
New Checks and Blues	(nominal)
Old Fustians.....	(nominal)
Old Linsey Garments.	(nominal)
New Silesias.....	(nominal)

PHILADELPHIA

Domestic Rags (New)

(Price to Mill, f.o.b. Phila.)

Shirt Cuttings—			
New White No. 1.	.07¼	@	.07½
New White No. 2.	.04	"	.04½
Light Silesias.....	—	"	.04½
Silesias, No. 1....	—	"	.04½
Black Silesias, soft	—	"	.03¾
New Unbleached..	.05½	"	.06
Washable, No. 1..	—	"	.04
Blue Overall.....	—	"	.05
Cottons—According to grades—			
Washable No. 2...	—	"	.02
New Blue	—	"	.02
Fancy Percales....	—	"	.03
New Black Soft...	—	"	.04
New Light Seconds	.04½	"	.05
New Dark Seconds	—	"	1.55
Khaki Cuttings—			
No. 1 O. D.....	.03½	"	.04
No. 2 Mixed.....	.03	"	.03¼
Corduroy	—	"	.02½
New Canvas.....	.05½	"	.06
New Black Mixed.	—	"	.03

Domestic Rags (Old)

White No. 1—			
Repacked	3.25	@	3.75
Miscellaneous	2.75	"	3.00
Thirds and Blues—			
Miscellaneous	2.00	"	2.25
Repacked	2.50	"	2.75
Black Stockings (Export)	3.50	"	4.00
Roofing Stock—			
Foreign No. 1....Nominal			
Domestic No. 1..	1.50	"	1.60
Domestic No. 2...	1.35	"	1.45
Roofing Bagging..	—	"	1.30

Bagging

(f.o.b. Phila.)

Gunny, No. 1—			
Foreign .....Nominal			
Domestic	2.50	@	3.00
Manila Rope.....	3.25	"	3.75
Sisal Rope.....	1.75	"	2.00
Mixed Rope.....	1.25	"	1.50
Scrap—			
No. 1.....	2.00	"	2.50
No. 2.....	—	"	1.30
Wool Tares, heavy..	3.50	"	3.70
Mixed Strings	.75	"	1.00
No. 1 New Light Burlap	3.00	"	3.50
New Burlap Cuttings	2.00	"	2.25

Old Papers

(f.o.b. Phila.)

Shavings—			
No. 1 Hard Write	2.25	@	2.30
No 2 Hard White	2.00	"	2.10
No. 1 Soft White	1.85	"	1.90
No. 2 Soft White	1.50	"	1.60
No. 1 Mixed.....	.90	"	1.00
Solid Ledger Stock..	1.50	"	1.60
Ledger Stock, white.	1.40	"	1.45
Ledger Stock, colored	1.10	"	1.20
No. 1 Books, heavy..	.90	"	.95
Manila Cuttings.....	1.75	"	1.80
Print Manila.....	.60	"	.70
Container Manila....	.50	"	.60
Kraft Paper.....	1.00	"	1.10
No. 1 Mixed Paper..	.40	"	.45
Straw Board Chip...	—	"	.40
Binders Board Chip..	.40	"	—
Corrugated Board...	.60	"	.65
Overissue News.....	.70	"	.75
Old Newspapers.....	.50	"	.55

BOSTON

Old Papers

(f.o.b. Boston)

Shavings—			
No. 1 Hard White	2.25	@	2.50
No. 1 Soft White	1.85	"	2.15
No. 2 Mixed.....	.75	"	.80
Solid Ledger Books..	1.30	"	—
Overissue Ledger Stock	1.30	"	1.50
Mixed Ledgers.....	.85	"	.90
No. 1 Books, heavy..	1.00	"	1.10
No. 1 Books, light..	.65	"	.75
Crumpled Stitchless Book Stock.....	.55	"	.65
Manila Env. Cuttings	1.70	"	1.85
Manila Envelope Cuttings, extra quality	2.35	"	2.60
White Blank News..	1.40	@	1.50
No. 1 Kraft.....	1.10	"	1.20
Mixed Papers.....	.30	"	.32½
Print Manila.....	.65	"	.70
Container Manila....	.60	"	.70
Old Newspapers....	.60	"	.65
Paper Wool Strings	.80	"	.90
Overissue News.....	.70	"	.75
Box Board Chips.....	.50	"	.52½
Corrugated Boxes....	.50	"	.60
Kraft corrugated boxes	.95	"	1.00
Screening Wrappers	.60	"	.70

Bagging

(f.o.b.Boston)

Manila Rope—			
Foreign	4.25	@	4.50

TORONTO

Paper

Bonds

Direct mill shipment in two-ton lots.			
No. 1 White $36.50		@	—
No. 1 Tints	37.50	"	—
No. 2 White	26.50	"	—
No. 2 Tints	27.50	"	—
No. 2 Golden Rod..	28.50	"	—
No. 3 White	22.00	"	—
No. 4 White	15.50	"	—
No. 4 Tints	16.50	"	—
No. 4 Golden Rod..	17.50	"	—
Direct mill shipment in three-ton lots.			
No. 5 White $10.40		@	—
No. 5 Tints	11.40	"	—
No. 5 Golden Rod..	12.40	"	—
No. 6 White	9.40	"	—
No. 6 Tints	9.90	"	—
No. 6 Golden Rod..	11.40	"	—
No. 7 White	8.40	"	—
No. 7 Tints	8.90	"	—
No. 7 Golden Rod..	10.40	"	—
Book—			
No. 1 M. F.	$7.75	"	—
No. 2 M. F.	7.25	"	—
No. 3 M. F.	6.60	"	—
No. 1 S. C.	8.25	"	—
No. 2 S. C.	7.75	"	—
No. 3 S. C.	6.25	"	—

Coated Book & Litho

Ton Lots (resale)

No. 1 .....$12.15		@	—
No. 2	10.50	"	—
No. 3	9.45	"	—
Coated tinted.....	13.20	"	—
Golden Rod.....	14.80	"	—
Wrapping—delivered—			
Rag Brown.....	4.85	"	5.25
White Wrap.....	4.00	"	—
"B" Manila.....	4.90	"	6.15
No. 1 Manila....	$5.50	@	$6.90
Fiber	5.50	"	6.90
Kraft No. 2.....	5.50	"	6.90

(f.o.b. Cars, Toronto)

News per ton—			
Rolls (contract)..	46.00	"	—
Sheets	54.00	"	—

Pulp

Ground wood.....$36.50		@	—
Unbleached sulphite.	54.00	"	—
Bleached sulphite...	64.00	"	—
Kraft	47.50	"	—
Soda	58.00	"	—

Old Waste Paper

(In carload lots, f.o.b. Toronto)

Shavings—			
White Env. Cut..	2.15	@	—
Soft White.....	2.00	"	2.15
White Blk. News..	1.35	"	1.50
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	"	1.00
Light and Crumpled Book Stock.....	.80	"	.90
Ledgers and Writings	1.15	"	—
Manilas—			
New Manila Cut..	1.55	"	1.60
Printed Manilas...	.77	"	—
Kraft	1.15	"	—
News and Scrap—			
Strictly Overissue	.75	"	—
Strictly Folded ..	.70	"	—
No. 1 Mixed Paper	.60	"	—

CHICAGO

Waste Paper

(f.c.b. Chicago)

Shavings—			
No. 1 White Envelope cuttings..	2.40	@	—
No. 1 Hard White	2.23	"	—
No. 1 Soft White	2.00	"	—
Ledger and Writings	1.20	"	—
Solid Books.....	.95	"	—
Blanks	1.70	"	—
Krafts	1.00	"	—
New Kraft Cuts.....	1.60	"	—
Overissue News.....	.80	"	—
Old Newspapers—			
No. 1 Folded News	.73	"	—
No. 1 Mixed Paper	.63	"	—
Roofing Stocks—			
No. 1	1.25	@	—
No. 2	1.15	"	—